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CHICAGO

from —
PORTS OF AMERICA BY LOUIS ORR

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CHICAGO

THE WORLD'S YOUNGEST GREAT CITY

MIEHLE PRINTING PRESS & MFG. CO.
CHICAGO

Old Water Tower *from* Rush Street

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CHICAGO

(Printed in U. S. A.)

The Introduction

This Book is a study of Chicago by men who know the spiritual and material resources of an indomitable community, who know its history, its resolution, its mission. We who are so close to Chicago's many and various activities and who have watched the city's rapid growth, not as spectators but as participants, set forth this book that the world may also share our pride and confidence. What are we, fellow-workers building the youngest of the great cities? We are an incorporation of the forces of destiny; and what we would we Will. Chicago would have everyone its friend. By what method then may this desire be accomplished? Not by spreading boastful and false impressions of greatness, but by truths of record. Chicago is no better, but also no worse, than any other great city. We are world leaders in many lines of industry and commerce; and by hard work only has this position been gained. We therefore take credit where credit is due, but are glad to give with the same spirit. Read, and with us acclaim Chicago.

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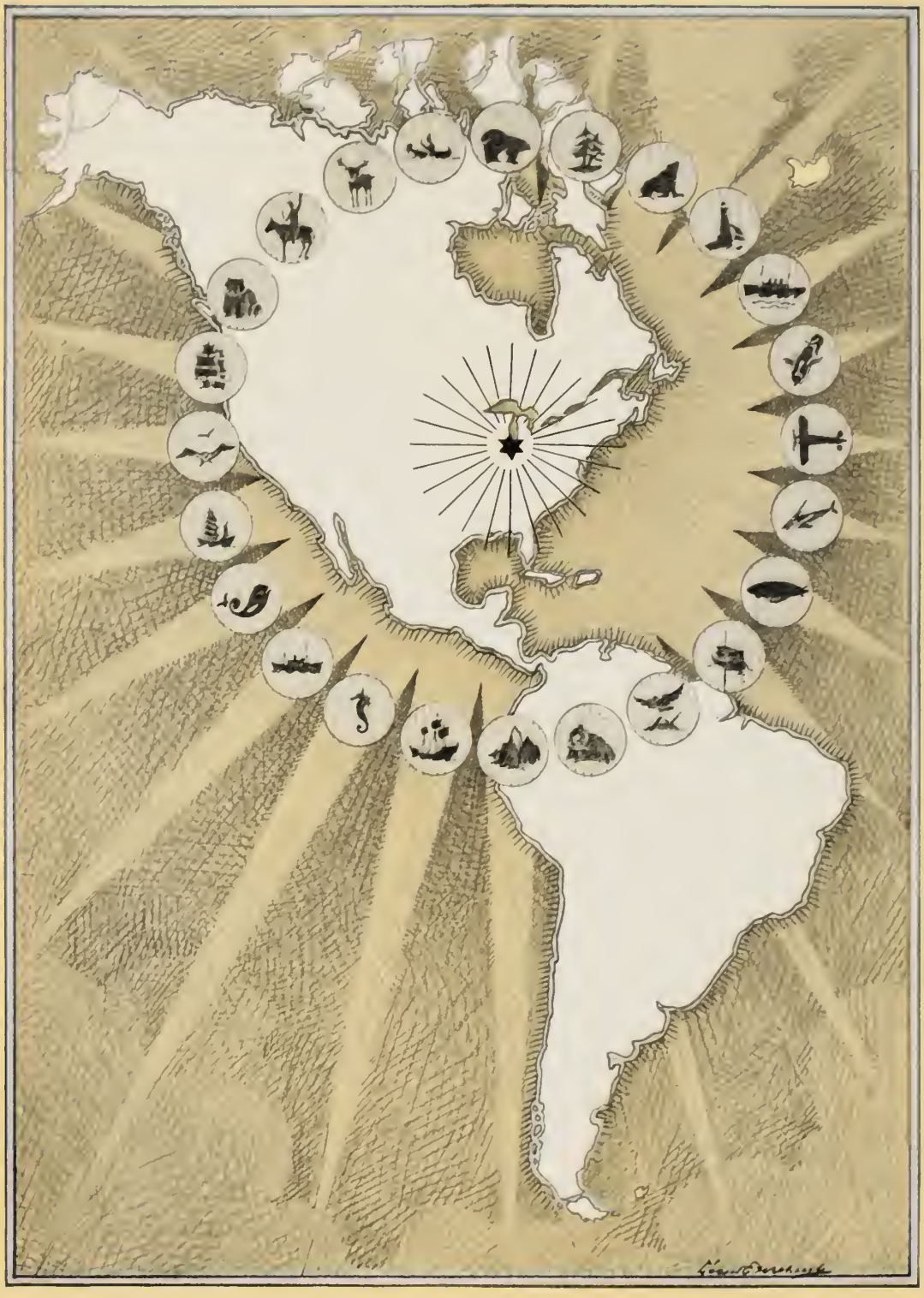


CHICAGO
the
NATURAL CAPITAL OF THE CONTINENT

By

COLONEL ROBERT R. MC CORMICK

¶ The actual capital of a nation or an empire will be located in any era where the forces of history on the one hand and the influences of climate and physical geography on the other have produced a dominating focus of wealth and economic power.

¶ As America ages, it is bound to become less colonial and more continental in character. When our financial and economic organization has been thoroughly harmonized with the North American land mass upon which it is based, when real American culture and tradition have become native to the mind of a more homogeneous and better-fused people, the position of Chicago as the natural capital of the country will become an axiom.

¶ Even today when our traditions and culture are so largely second-hand European, Chicago's supreme position in the emerging America of continental dimensions and continental habits of thought is clear enough to those who have taken the trouble to investigate and generalize the history of this country as a series of reactions between race and cultural heritage on the one hand and of geography on the other.

¶ A large relief map of North America mounted on one wall of the lobby in the Tribune Tower, upon which the name of Chicago is not even written, gives visual evidence of the city's place in the great adventure of the western white man in this new northern world.

¶ The geographical axis of North America extends north and south. Its natural economic "axis" is in fact an irregular curved line which joins the mouths of the St. Lawrence and the Mississippi Rivers, traversing the heart of the Mississippi Valley and the medial lines of the Great Lakes and St. Lawrence valleys. The actual commercial "axis" of the United States today is the east-to-west web of great trunk line railroads, with New York and Chicago as the poles.

¶ The line of settlement and of political history also ran east and west, but rather more to the south, as the passage of colonial America over the Appalachian range took the route of the Valleys of Virginia, the Tennessee and Ohio Rivers before the commercial route of the railroads and the Erie Canal became of primary importance. Thus it came about that the earliest history of Illinois was closely linked with Virginia, Kentucky and Tennessee.

¶ But now that the commercial "axis" of America is shifting fast toward the natural economic "axis" marked out by the two great watercourses, Chicago is rapidly renewing the ties which formerly linked it to the commonwealths of the southeast; and in even greater measure is Chicago forming mutually profitable relations with the southwestern regions, which were colonized from the South Atlantic seaboard.

¶ The astounding growth of Chicago, up to 1910 at least, was due *both* to its historical good fortune and its geographical location. Although the westward march of population, agriculture and industry was not upon the natural lines which would have been pursued if settlers from the British Isles had first occupied the mouths of the Mississippi and St. Lawrence, nevertheless Chicago's position on the westward line of advance across the Appalachian barrier was such that the city grew and waxed

Tribune Tower

rich, as rapidly probably as it would have done if history had otherwise been enacted. America was developed very largely as a source of raw material supply, first for European then for our North Atlantic industrialism.

¶ Because of the persistence of the political frontier across the St. Lawrence waterway and for other compelling reasons, historical, political and technical, the railway net-work became all important; and America became primarily a railway-made country. At an early date Chicago became the hub of the railway system —a position which it retains and probably always will, although other gateways of transcontinental rail traffic have gained tonnage, while Chicago is no longer primarily a gateway or transfer point. The city's industrial development and diversification have proceeded to the point where seven eighths of the railway traffic in and out of the Chicago terminal district are devoted to servicing the city itself. Only one eighth is now through traffic. The character of the railway commerce also has undergone a radical change. Formerly Chicago was an assembly point for raw materials and food stuffs, consumed by the more highly specialized industries and peoples of the East and Europe. Our major industries, like packing, were processing rather than creative—the value of the product being composed mainly of the value of the raw material.

¶ Today the metropolitan area fabricates into highly-finished goods a large part of the raw materials assembled here; and the value of the product embraces vastly more of the returns to capital, skilled labor and management. Chicago has advanced toward the metropolitan industrial status, characterized by a multiplicity of highly specialized and technically advanced industries such as chemical, automotive mechanical, electrical, telephone and radio goods. But at the same time the shift of basic industries from the East has caused a tremendous growth of the heavier metallurgical industries to the south shore of Lake Michigan. The specialized industries of the metropolitan area therefore have a unique advantage. Their most important fabricated "raw material"—steel and iron—is produced at the very doors of their plants.

¶ It thus comes about that not only is the in-and-out rail traffic of Chicago largely devoted to the service of the city's creative industries, but a large part of the huge traffic of the Lakes, which is equal in tons to about one third of all the international oceanic trade of the world, is devoted to the same end.

¶ This unique conjunction of heavy and highly specialized industries is back of another Chicago characteristic—the vast intra-terminal traffic of the Chicago area, where over 10,000 railway cars are moved from point to point within the metropolitan area daily, being loaded and unloaded in the Chicago terminal district. Chicago has several belt railway systems each larger than the entire terminal plant of other great cities of the world. The largest incoming railway traffic consists of coal, most of which is converted into electrical and mechanical energy within the metropolitan area. In an age which is beginning to be called electrical, the fact that the Chicago terminal district is now not only the largest, but one of the few growing terminal markets for coal in the world, is highly significant—especially in view of the fact that modern thermic generation of electricity and the modern transmission of electrical energy on a large scale were pioneered within the Chicago area.

¶ Incidentally Chicago occupies on the North American pipe line system, which conveys liquid fuel every year equal in tonnage to half the freight carried on the railways of France, a strategic position not much inferior to the city's commanding place in the railway web of the nation.

¶ It is interesting, when we contemplate how the flow of commerce is gradually shifting the economic structure of North America toward the natural economic "axis" of the continent, to observe that while Chicago is in the United States, it is in fact the central and dominating point of the Canadian railway system. Both of the great Canadian railway systems come to Chicago over the tracks of their own

subsidiaries. Through its government-owned railway system, the Dominion government operates a part of the great Chicago terminal net-work; and the lines which enter Chicago are the greatest asset of that system. Because of their traffic density, which they derive from their access to the Chicago traffic pool, these lines earn enough to overcome the deficits of lines within the Dominion many times their length.

¶ So much for the crossroads of commerce which has already come into being at the foot of Lake Michigan, largely as a consequence of historical thrusts of population, trade and industry westward from the Atlantic directly across the Appalachian barrier with the Mohawk gap and the Lakes and their shores as the principal highway.

¶ A glance at the continental map and some consideration of the newer trends of traffic give us a hint of what Chicago may expect from the reorientation of American trade routes and of our entire economic and financial set-up, into line with the natural economic "axis" of the continent, as revealed by the mounting prosperity of the north and south railroads such as the Illinois Central and L. & N., the expanding trade of the gulf ports and the industrial expansion of the South which is being accelerated by the movement of Chicago capital southward. The line from Montreal to New Orleans follows the two great natural watercourses—eventually to the traffic waterways.

¶ It is inevitable that the foreign trade of the Chicago metropolitan area will grow; but on the whole, international trade is not expanding in equal step with the domestic production of advanced industrial nations. As synthetic chemistry diminishes the importance of many raw materials peculiar to certain climates and soils, as power driven machinery diminishes the importance of cheap labor available in older areas of dense population, the international movement of commodities will decline in relative importance although increasing absolutely. One effect of this will be to render obsolete the hegemony of the great seaports in industrial output, trade and finance.

¶ One important requisite of banking leadership has been a great seaborne trade and a foreign exchange market. The financial leadership of Amsterdam, London and New York has been largely derived from their docks. The present drift of the world is away from the former ascendency of seaborne commerce, however much it may gain in tonnage and value. That drift is one of the many factors which will give greater emphasis to the unique wealth of soil and minerals at Chicago's very doors.

¶ Prior to the coming of fuel power into the world, civilizations may be classified according to each dominant crop from which men and beasts derived the solar energy, chemically

Proposed Lake Front Railway Terminal

captured and transmitted, with which the world's work was performed. Today the world must depend upon fossil fuel for the bulk of its captive energy. Only three percent of the work performed in America today is muscular. To maintain a high state of civilization coal must be had; and to harness the energy of coal, iron is necessary and must be abundant and readily accessible. European industrialism and that of our Atlantic seaboard have become primarily iron and steel regimes, dependent upon trade balances and imports for an important part of their food supplies. Chicago is the focus of a vast region which is not only endowed with ample supplies of coal and iron ore, but has a wealth of soil which is sufficient to feed any population the region ever may be called upon to sustain, and which for decades has been contributing a large part of the food stuffs required by the older industrial areas.

¶ Looked at from the standpoint of human nature, the United States today may be viewed as a vast central block of rich soil, with outlying appendages on the Pacific and Atlantic supplying only a few exotic food products to the country at large and drawing upon the central reservoir of soil, rainfall and sunshine for their main sustenance. It is interesting to observe that the stone age civilizations which flourished in the Western hemisphere were maize-nourished. Their culture, religion and social organization were intertwined with the wonderful tropical grass tamed by some unsung Amerindian Prometheus who developed this wonderful plant into a matchless captor of solar energy.

¶ The American corn belt, which is flung about Chicago in generous folds of rich soil, is one of the very few areas in the world where a typically tropical plant may be grown in a climate where white men can flourish and multiply. The short hot summer, heavy rainfall and lush nights which mark this area enable the corn plant to use the forced draft methods of its ancestral, equatorial habitat. The result is that with a minimum expenditure of man power the soil of the corn belt yields a greater amount of food for a given acreage than most areas habitable by white men.

¶ Because "corn walks to town," embodied as swine, its overwhelming significance in American civilization is obscured, to the superficial observer. Nevertheless, on one side America today is a maize civilization just as much as the culture of the Inca or the Maya; and Chicago's position at the main portal of the corn belt is one of the reasons why it is the natural capital of North America.

¶ Within four hours' airplane flight of Chicago lies the richest producing iron field now being mined in all the world. It is imbedded in vast volumes of leaner ores, which only await further technical progress, to become available for industry. The movement of the annual yield of this ore through one of the inter-lake channels is the principal component of a ship traffic which in weight is nearly three times that of either Panama or Suez. Within that same radius lie coal deposits far greater than those of Russia and France combined. North America is believed to hold four sevenths of the world's fossil fuel. Most of it lies within or on the edges of the two great central valleys that meet in the low divide on which Chicago, the first continental capital in the history of the human species, has begun a career that for ages will challenge the interest of all mankind.

In Grant Park, *at* Congress Street Bridge, *near* South Michigan Boulevard

A SCIENTIFIC PLAN FOR CHICAGO'S PHYSICAL GROWTH

By

JAMES SIMPSON

Chairman
Chicago Plan Commission

¶ The Chicago Plan Commission is only an "influence." With no powers but those of persuasion, it has made a place for itself unique in Chicago life, because its membership is thoroughly representative; it is non-political, non-sectional, non-sectarian; and because its technical work is so thorough and practical as to inspire public confidence. When the Plan Commission makes a recommendation the people know that it is based upon long study, seasoned experience and practical considerations. They also know that the Commission takes a long look into the future; that it has no selfish interests to serve, but only the best interests of the city; and that it will follow through with its recommendations, undismayed by obstacles.

¶ The Plan of Chicago was begun in 1907, when city planning was a new idea in this country. But Chicago had experienced the stimulus of the World's Fair of 1893; and it was growing with such headlong rapidity, both in population and territory, that some guidance for that growth was an urgent requirement. The preparation of a scientific, city-wide plan was undertaken by the Commercial Club of Chicago, within whose membership the idea had originated. This organization is still, as it was then, composed of about one hundred of the leading business and professional men of the city. Daniel Hudson Burnham (deceased 1912) was the member upon whom fell the task of assembling the technical staff and directing the technical work. Mr. Burnham was an architect at the top of his profession. As Director of Works of the World's Fair he had demonstrated his organizing genius. Up to this point the Plan of Chicago was in private hands. Upon its publication (1909), the Commercial Club presented it to the city as a gift, with the recommendation that a commission be appointed to study it and advise about its execution. That course was adopted, and the Chicago Plan Commission became a department of the city government, but without legalized executive authority. It has 328 members, of whom the mayor, the aldermen and certain department heads are members, ex-officio. The activities of the Commission are directed by a chairman (Charles H. Wacker, November, 1909-December, 1926), James Simpson (December, 1926———), two vice-chairmen, an executive committee, a manager, a chief engineer, and an office and engineering staff. At the time the Plan was laid out there was nothing before the planners that was more urgent than reclaiming our waterfronts, lake and river; or than saving from extinction our forests on the outskirts of the city.

¶ Secondly, the city was suffering from lack of unity, and needed new connections between the central business district and the various outlying sections; and between these several sections.

¶ Thirdly, the facilities of the steam railroads needed rehabilitation. The Plan Commission acted in its advisory capacity in railway terminal negotiations.

GROUP 1. *Preserving Chicago's natural assets.*

¶ In 1869 a park system had been laid out for the city. It included two parks along the lake shore—Lincoln Park to the north and Jackson Park to the south.

Jackson Park—Today

—In 1891

¶ In the early 90's Grant Park, along the lake opposite the center of the city, was added. There still remained a stretch of six miles between Grant and Jackson Parks where the lake shore was monopolized by railroad tracks. As a pleasure-giving retreat the lake in this section was a total loss. Now, however, the lake shore is being developed into a park 1,138 acres in extent, by filling in the shallow water. The new park lands, which have received the name BURNHAM PARK in honor of the author of the Plan of Chicago, are being laid out in accordance with designs submitted by the Chicago Plan Commission.

¶ The Plan Commission has prepared plans for a boulevard connection between the Lincoln Park and the South Park system. These plans have been adopted officially by the commissioners of both systems. The legal and financial preliminaries have all been arranged; the Federal and State Governments have issued the needed permits, and construction work is about to begin. The proposed connection consists of an elevated structure and a bridge across the mouth of the Chicago River, also a second bridge across a channel which Chicagoans call the "Ogden Slip." We may expect to see this project completed toward the middle of 1931.

¶ When all the work which now is going forward on the shore of Lake Michigan is finished, Chicago will have an uninterrupted waterfront drive for the full 25-mile length of the city.

¶ Nearly sixty years ago the south bank of the main channel of the Chicago River was used as the produce market. Years went by,

population increased and the business center spread until it impinged immediately upon the market. The market became more and more crowded, but still went on doing business in the same spot, inappropriate as that spot had become. Market vehicles not only absorbed the market street proper (South Water Street), but jammed all the streets leading to it. As it lay on the margin of the loop, it was included in the Plan Commission's scheme for a marginal by-pass for through-bound traffic around the loop; and finally, there was a growing demand for the reclamation of the river bank. The produce market removed to a more suitable location, and South Water Street was replaced by a double-decked thoroughfare a mile and a quarter in length. The new highway was named WACKER DRIVE, in honor of the first chairman of the Chicago Plan Commission. It was opened for public use in October, 1926. The upper surface of Wacker Drive is used by all classes of traffic; the lower level is used by commercial traffic. In the construction of Wacker Drive the first step was taken toward providing Chicago with a river front beautiful and impressive as well as utilitarian. The Plan Commission has plans under way for the extension of Wacker Drive to the east and south; and for a drive on the north bank of the main channel.

¶ In accordance with recommendations in the Plan of Chicago, the Forest Preserve District of Cook County was organized, in 1914. There were at that time about 35,000 acres available for preservation in a state of nature, and 30,000 acres already have been acquired. These lovely tracts, which form a belt about the city, are used as country playgrounds and retreats.

Group 2. *Improvements which unify the city and facilitate the movement of street traffic.*

¶ The first of these to be recommended by the Chicago Plan Commission was Roosevelt Road. This thoroughfare connects the west side with the south side and the central business district. It has been one of the most heavily traveled streets in Chicago. When widened from sixty-six feet to 108, between Canal Street and Ashland Avenue, it contributed a generous advantage to traffic. The improvement will be further carried on by means of a bridge and viaduct from Canal Street east to Wabash Avenue. Roosevelt Road also will be extended to the lake-front park by the South Park Commissioners. The second improvement of this character was the Michigan Avenue link between the north and south sides of the city. After ten years of work—technical, legal, and financial—that link was opened to the public in May, 1920. It is the most heavily traveled street in Chicago. Like Wacker Drive, it has two levels, which dovetail with the two levels of Wacker Drive. This improvement reclaimed for intensive uses the neglected district immediately north of the river, and brought about a high-class building development that is still going on.

¶ Another important "downtown" street is now undergoing improvement. This is La Salle Street, parallel to and five blocks west of Michigan Avenue. The widening has been complete from the City Hall to the Chicago River (three blocks), where for the first time since the Chicago Fire of 1871 a bridge in line with La Salle Street has been constructed. Thence the widening will extend to Lincoln Park, a distance of two miles. In this improvement we have another link between the north side and the loop.

¶ Less spectacular, but equally important to the proper development of Chicago, is the improvement of several other major streets in various parts of the city. Ashland Avenue and Western Avenue are two and four miles (respectively) west of the loop, and leading through the most populous districts of the city. Each is being improved. The extension of Ogden Avenue as a through radial thoroughfare was recommended by the Plan Commission in 1916, and the improvement has been two-thirds complete for several years. Two bridges and a viaduct are necessary to complete the extension; and these will be built when funds for the purpose have been provided, after which Ogden Avenue will be a wide arterial highway from the lake to the southwestern city limits.

Wacker Drive's Double Deck

¶ Everyone familiar with the geography of Chicago knows that five of the north-and-south loop streets come to a stub-end at the southern edge of the loop, where they encounter the south branch of the Chicago River and the railroad yards that lie alongside it to the east and west. It must be apparent to any one that if these five important streets (Dearborn, La Salle, Wells, Franklin and Market) could be opened through the railroad territory and aligned with south side streets, Chicago would take an immense stride forward in extricating itself from its street traffic tangle. After fourteen years of preliminaries, a new river bed in a straight north-and-south line is being dug. The present crooked channel will be filled in. After the railroads (owners of the land in the district) have settled upon the way they intend to use the land, the street projects can go forward.

Group 3. *Railway Terminal Facilities.*

¶ Chicago is a center for twenty-eight railroads.

¶ Some twenty years ago a movement was started for the rehabilitation of terminal facilities. In 1925 the Union Station was formally opened. This terminal provides facilities for the Pennsylvania, the Burlington, the Alton, and the Milwaukee railroads. In the protracted negotiations which culminated

Taking a "kink" out of the Chicago River
The New Channel is at the Left

in the Union Station ordinance of 1914, the Plan Commission's part was to safeguard and further the city's interests in return for concessions granted by the city to the railroads. Public benefits secured for the city in following the recommendations of the Chicago Plan Commission included the widening and improving of Canal Street (on which the Union Station head-house fronts) for ten blocks; new bridges and viaducts; the abandonment of plans which interfered with the Plan of Chicago street system; and co-operation in the straightening of the south branch of the Chicago River between Polk and West 18th Streets.

¶ In 1919 the Lake Front-Illinois Central ordinance was passed. The fruits of the recommendations of the Plan Commission include the acquisition of the railroad's riparian rights, so that the Lake Front improvement could be carried out; and the electrification of the railroad facilities. The Illinois Central suburban service has been electrified, and work is progressing on the electrification of the through passenger and the freight services. Eventually the Illinois Central Railroad Company will build a new passenger terminal on Roosevelt Road (extended) alongside the Field Museum and in architectural harmony with it.

ART · SCIENCE
LITERATURE

FIELD MUSEUM OF NATURAL HISTORY

By

STANLEY FIELD

President of the Institution

¶ It is the mission of Field Museum of Natural History to disseminate knowledge of the world we live in. It accomplishes this purpose by presenting knowledge in its most fascinating form. It employs methods which are graphic, vivid and often dramatic. It maintains the highest standards of scientific accuracy, but avoids dullness and pedantry in the presentation of its subjects. That it is succeeding in making science attractive and popular is demonstrated by the steady growth in the number of visitors which the Museum has received during the years of its existence. In the last few years the number entering its portals annually averages well over one million.

¶ Field Museum was founded in 1893 by the late Marshall Field. It is dedicated to the cause of education, and is operated as the property of the people of Chicago for their benefit and the benefit of the city's visitors. The institution is recognized as one of the greatest four or five scientific museums in the world. It is housed in a magnificent building of white Georgia marble, 700 feet long, 350 feet wide and 90 feet in height. This building, centrally located at Roosevelt Road and Lake Michigan, where it is easily accessible from all sections of the city, was erected at a cost of more than $7,000,000. The main architectural motifs were inspired by the Erechtheum, one of the temples of the Acropolis group of ancient Athens.

¶ An inventory of the material contained in the exhibits in this building indicates an intrinsic value for them of approximately $45,000,000. A truer estimate is obtained by disregarding dollar value, for such a vast amount of this material could never be duplicated that it must be regarded as priceless. In content, the scope of Field Museum embraces the four great natural sciences of anthropology, botany, geology and zoology, each with its many important subdivisions. In other words, the things with which this museum deals are basic ones—the life of man, the life of the plants, the life of the animals and the composition of the earth upon which all these forms of life have their being. Knowledge of these things comprises the main underlying elements of all knowledge.

¶ Through one or another of its services the Museum has something to give every sort of person, from the kindergarten child to the erudite scholar. While the exhibits are the most important factor in fulfilling the purposes of the institution, it also functions through many additional activities, each of which is important either as an influence in the education of children, in adult education or in the advancement of science.

¶ Exhibits are prepared from material gathered from far and near by collectors who are highly qualified specialists in their respective branches of the natural sciences. Constantly the exhibits are being supplemented and improved. Every year several expeditions are dispatched to remote parts of the world for the collecting of new material. Millions of dollars have been spent on such expeditions. Many of these are sponsored and financed by civic leaders. There often are from twelve to fourteen in operation simultaneously. The Museum has had as many as sixteen at work in one year—some seeking out specimens of rare animals, others collecting exotic trees, plants and flowers;

Field Museum

others collecting material representing the lives of primitive races who anachronistically still survive in many parts of an otherwise modern world; and still others laboriously digging into the depths of the earth and finding traces of long-dead civilizations, of prehistoric man and of giant prehistoric animals which roamed the earth before the first man existed.

¶ In addition to collecting material for exhibition, these expeditions often explore territory of which little or nothing is known, sometimes obtaining knowledge which results in changes in scientific theories previously held, and thus of international interest among savants. Therefore the results of such expeditionary work, as well as the results of much important research conducted by scientists within the Museum's laboratories and study rooms, are made the subjects of publications issued by the institution and circulated throughout the world.

¶ After the arrival of its treasures collected from all over the world, the material is worked over with meticulous care by men who are experts in various branches of modern museum technique, before it is placed on exhibition. Specimens representing primitive peoples or ancient civilizations often have to be subjected to many processes to prepare them for exhibition; and frequently profound studies have to be made of them in order that authentic and interesting information may be written for the descriptive labels which go with them into the exhibition halls.

¶ Group exhibits are arranged often in which life-size figures, modeled by the Museum sculptors, illustrate such subjects as Indians, African medicine-men, elegant Manchu ladies, Eskimos, all dressed in their native costumes and equipped with objects representative of various phases of their lives. Miniature models of whole native villages in far places like the

Roosevelt Expedition in the Himalayas

Philippines or Sumatra are constructed for exhibition. For botanical specimens special laboratories are maintained where, by the efforts of skilled artisans employing the most up-to-date methods, are reproduced those parts of plants and trees which cannot be well preserved. These accurate and lifelike reproductions are merged with the preservable parts of the originals, so that the final exhibits appear as living plants or trees. Other laboratories are devoted to the preparation of minerals, meteorites, exhibits demonstrating the composition of rock structures and the effects of natural forces on the earth, models of mines and industrial plants, and other types of material shown in the Department of Geology. This department also has laboratories for the assembling of the bones of prehistoric animals, in which complete and partial representative skeletons are reconstructed. In the taxidermy laboratories, for the preparation of the mounted specimens of modern animals, the most advanced practices are employed. Animals are not just "stuffed." The day of the old-fashioned "stuffed animal" is past, so far as modern museums are concerned. The animals are mounted by intricate methods whereby they appear as alive as if encountered in forest or jungle, their attitudes being copied from those of live animals of their kind which have been carefully studied. In many of the zoological exhibits reproductions of the animal habitats are prepared as settings—scenes of forests, mountains, swamps and so forth, composed of painted backgrounds and foregrounds with actual trees, rocks and other features so constructed that the finished exhibits give complete pictures of the animals amid their natural environments.

¶ Among the most important features of the work the Museum does for the advancement of education are the activities it carries on especially for school children. Two special units of the Museum organization, each with a large staff, are devoted to this work. One of these units is the N. W. Harris Public School Extension Department, founded by the late Norman W. Harris. This department prepares traveling exhibits of material illustrating the natural history of the region surrounding Chicago within a radius of about one hundred miles, and also economic subjects. More than 1,000 of these traveling exhibits have been prepared and now are being circulated among the schools. They contain birds, small mammals, flowers, industrial products, physical geography exhibits and other such material, attractively arranged. Many of these cases have elaborate backgrounds, on a small scale like some of the large habitat groups in the Museum. Two of these cases are sent to each

Stanley Field Hall

Chicago school every two weeks throughout the school year, and also to various community centers and other such gathering places.

¶ The second unit devoted exclusively to children is the James Nelson and Anna Louise Raymond Public School and Children's Lecture Division, founded on an endowment provided by Mrs. Anna Louise Raymond. This division gives several series of weekly, free, moving-picture programs featuring films on natural history and other educational subjects. It also sends lecturers with stereopticon slides and moving pictures into the public schools to give talks to the children on the wonders of nature. It conducts tours of the Museum exhibits for school classes and other groups of children brought to the Museum. The exhibits selected for these tours correlate with various subjects currently being taught to the children in the schools, under a plan arranged with the cooperation of the Chicago Board of Education.

¶ For adults the Museum provides at frequent intervals courses of free lectures on science and travel by men eminent in the fields of exploration and research. These lectures are illustrated with stereopticon slides and motion pictures. Close to 50,000 persons attend them in one year. Additional thousands of adult visitors receive cultural development by participation in guide-lecture tours of Museum exhibits conducted by members of the staff.

¶ In addition to the public exhibits, Field Museum maintains vast special-study collections on various subjects falling within the scope of its several departments. These collections are available for the use of scientists from other institutions, and to students of the sciences from universities, colleges and secondary schools. The Museum recognizes the very important place of books in connection with the other methods of research; and has provided one of the most important natural history libraries in the country. This library contains more than 95,000 scientific books and pamphlets, including many rare and valuable volumes which long have been out of print. The library is open to the general public, and is used to great advantage by scientists, students and teachers, as well as by the staff of the Museum.

Field Museum Contains Many Lifelike Exhibits of Animals in Their Native Habitat

ART INSTITUTE OF CHICAGO

CHICAGO'S PLACE IN THE FINE ARTS

By

WALTER JAMES SHERWOOD

Staff Member
Art Institute of Chicago

¶ A few years ago it was said that as soon as a Chicago artist won his spurs he packed his paint kit and took a fast train to New York. While the East numbers many artists who received their training in Chicago, the time is now come when the city must utilize the services of its trained craftsman. The constantly increasing activities of this fast-expanding community, and the knowledge that art must enter more and more into its material growth, will absorb all local talent.

¶ There is being founded in Chicago a great Industrial Art School which will be the only one in the United States west of Philadelphia. This great school will be operated in connection with the Art Institute and will be under its supervision. The training of the American designer for American Industry will be its dominant concern. This school alone will be sufficient to give Chicago a significant advantage as a center for instruction in the arts. The money has been subscribed for this helpmate to Middle Western manufacture, and plans are being prepared for its development. Its location will be in the court at the southeastern extremity of the Art Institute's grounds.

¶ More and more, as the city grows, are new fields opening here for the artist. Publishing houses are multiplying, industrial concerns with art departments are increasing; and it already is the home of several internationally known magazines which employ staffs of illustrators. So many students desired to enter the art school of the Art Institute that the officials were obliged to formulate certain entrance requirements. Candidates must be at least eighteen years of age and must have been graduated from a four-year course in an accredited high school or secondary school. In addition, each student is required to possess funds to pay his or her expenses for one year. Even with these restrictions the average yearly attendance at the school now amounts to four thousand five hundred students. There are several other art schools in the city, some of which specialize in commercial art and prepare students for newspaper and magazine illustration.

¶ The city is constantly acquiring interesting new phases. It has possessed an individuality, a certain bold and aggressive spirit which indissolubly has been allied with romance. An artist sees much in its changing skyline. At the docks and in the harbors he finds much that is picturesque—great freighters, luxurious passenger boats, heavily-laden barges, chugging tugs, sleek steam yachts, graceful sail boats, fast launches and homely scows. Who can paint adequately the unearthly beauty of the night scene from the Wells Street elevated bridge with the lights from the giant skyscrapers shimmering on the waters of the Chicago River?

¶ The artist will find the unique and fascinating dune country, two hours' ride to the south; wooded country, broken into hills and ravines, two hours to the north; farms, pastoral lands, rivers and lakes, one or two hours to the west. All these afford excellent painting ground for the artist who does not care to roam.

¶ But the Chicago artist also goes far afield. Frederic Grant penetrates the Orient and paints

for us the colorful life of Bali; Robert Eskridge crosses the Pacific and brings back the primitive life of the Society Islanders; the Baer Brothers swelter in the heat of the Sahara Desert, with the mercury at 130 degrees, and send their remarkable paintings of Arab life to Chicago; Adam Albright travels to Venezuela and paints that country and its inhabitants; Irving Manoir paints Cuba and its tropical foliage; Laura Van Pappelendam gives us the brilliant colors of Mexico; Paul Trebilcock enjoys painting in London; Martin Hennings, Arthur Rider and Ethel Coe give us the life of Spain; Frank Peyraud and Edgar Payne show us the scenery of the Alps and paint the Swiss chalets; and the number of our Chicago artists who paint France and Italy is legion.

¶ But our own country offers most to our home artists. Many Chicago men have studios in Taos and Santa Fe, New Mexico, the country which still retains all that remains of Indian pueblo life. There we find Walter Ufer, Victor Higgins, Gustave Baumann, J. O. Nordfeldt, Raymond Johnson, Datus Myers, Olive Rush, Edgar S. Cameron and Martin Hennings among the Chicago group. Chicago artists who paint California scenes include William and Julia Bracken Wendt, Cornelius and Jessie Arms Botke, Wallace L. DeWolf, Alson Clark, Donna Schuster and Ralph Holmes.

¶ The great epics of nature, the scenery of our Rocky Mountain region, have been put on canvas by such well-known Chicago painters as Oliver Dennett Grover, Adolph Heinze, Edward Grigware, Charles W. Dahlgreen, Edgar Payne, Jessie Evans, Matilda Vanderpoel, Charles Wilimovsky. The more peaceful scenes of the Eastern country have been brilliantly painted by Karl Buehr and Carl Wuermer, who have summer studios at Woodstock, N. Y.; Percy B. Eckhart, who finds delightful subjects in the Berkshires; John A. and Anna Lee Stacey, the late Edward B. Butler, Frederic Tellander. Rudolph Ingerle, John A. Spelman, Otto Hake, Karl Krafft and Mr. Dahlgreen all paint in the Big Smokies of North Carolina and the Ozarks of Missouri, while Frederic Poole and F. De Forrest Schook find material in upper Wisconsin. Marques Reitzel, John T. Nolf and Edward Timmons set their easels in the picturesque country of the Fox and Rock Rivers, around Grand Detour, Aurora and Lake Geneva. Frederick Fursman and a whole colony of painters have headquarters at Saugatuck, Mich., where the Kalamazoo empties into the lake and where there are some wooded hills and picturesque ravines. These are but a few of the Chicago artists who are making art history in the Mid-West. With their native ability and enthusiasm they are bound in the future to make valuable contributions to the art of the Nation.

¶ The immediate future holds much for art development in Chicago. If plans now shaping materialize, the present Art Institute building will be enlarged in size and the art wealth of the world, or at least the cream of it, will be exhibited in the new addition during the 1933 World's Fair. That the public may become familiar with the great art of the world it is necessary to have this art accessible. The Art Institute is one of the most accessible museums in the country. Its collections are already priceless from the standpoint of replacement. They cannot be duplicated. The collection of Old Dutch Masters in the Hutchinson Gallery; the Ryerson Primitives; the Field collection of masters of the Barbizon School; the Munger Collection of French, English and American art; the Kimball Collection of English paintings; the Palmer Collection of French and American art; the Smith Gallery of early American Portraits; the De Wolf Gallery of American Landscapes; the Butler Collection of Inness Landscapes; the Friends of American Art collection, of one hundred and twenty-five American works of art,—are all notable groups and available to the people every day in the year.

¶ As to private collections, Chicago collectors already have acquired a goodly share of Europe's most valued prizes. Only recently two rare "Botticellis" were added to Max Epstein's collection. It is worth one's while to have Mr. Epstein tell you how he acquired the more valuable one of the two—the "Madonna and Child." He found it in the

Blackstone Hall

private collection of an old family in Europe. It had been catalogued a half century before in a Paris dealer's shop, but had disappeared from public view. Every "great master" acquired by our Chicago collectors has its own special romance. It would make a book of fascinating interest to have these stories related. Just how did the late John R. Thompson acquire the remarkable Franz Hals, entitled "The Merry Lute Player"? What is the story connected with Mrs. Catherine Spaulding's purchase of the almost priceless Titian "Danae"? It would be interesting to follow Charles H. Worcester in his numerous visits to the old world, to see how he manages to separate from their owners the rare "old masters" he brings back with him—"Mars and Venus," by Tintoretto, for instance; and the Moroni, the Veronese, the Cranach and a dozen other famous canvases.

¶ The paintings of Martin A. Ryerson, a rare and discriminating connoisseur, form one of the most important collections in Europe or America. Other Chicago collections containing rare "old masters" and the work of later famous men are those of Francis Neilson, Cyrus H. McCormick, Mrs. C. L. Hutchinson, Walter Brewster, Mrs. Frank Stout, Frank G. Logan, W. O. Goodman, George Harding, William C. Cressmer, Mrs. L. L. Coburn, John C. Shaffer, L. L. Valentine and Paul Schulze. Samuel Weiss and Ralph Cudney have many American paintings of value, while Mrs. John Alden Carpenter's collection includes the work of such famous modernists as Henri Matisse and Henri Rousseau. Chicago possesses one of the greatest collections of modern art in existence, the priceless Birch-Bartlett collection.

¶ This valuable collection of the works of the great modernists—Cezanne, Van Gogh, Gauguin, Matisse, Picasso, Derain, Lhote, Utrillo, Hodler, Modligeliani, Seurat, Segonzac and others, was given to the Art Institute in 1926 by Frederic Clay Bartlett, in memory of his wife, Helen Birch Bartlett.

THE JOHN G. SHEDD AQUARIUM

By

MELVIN A. TRAYLOR

President
Shedd Aquarium Society

¶ An edifice for the Shedd Aquarium is now under construction in Grant Park, on the shore of Lake Michigan. It will be completed in 1930. This valuable institution was made possible by the late John G. Shedd, who donated $3,000,000 to the people of Chicago for the purpose. The Aquarium will be built, operated and controlled by the Shedd Aquarium Society. Funds for future maintenance are assured by a small tax, levied by the South Park Commissioners on the South Park District of Chicago.

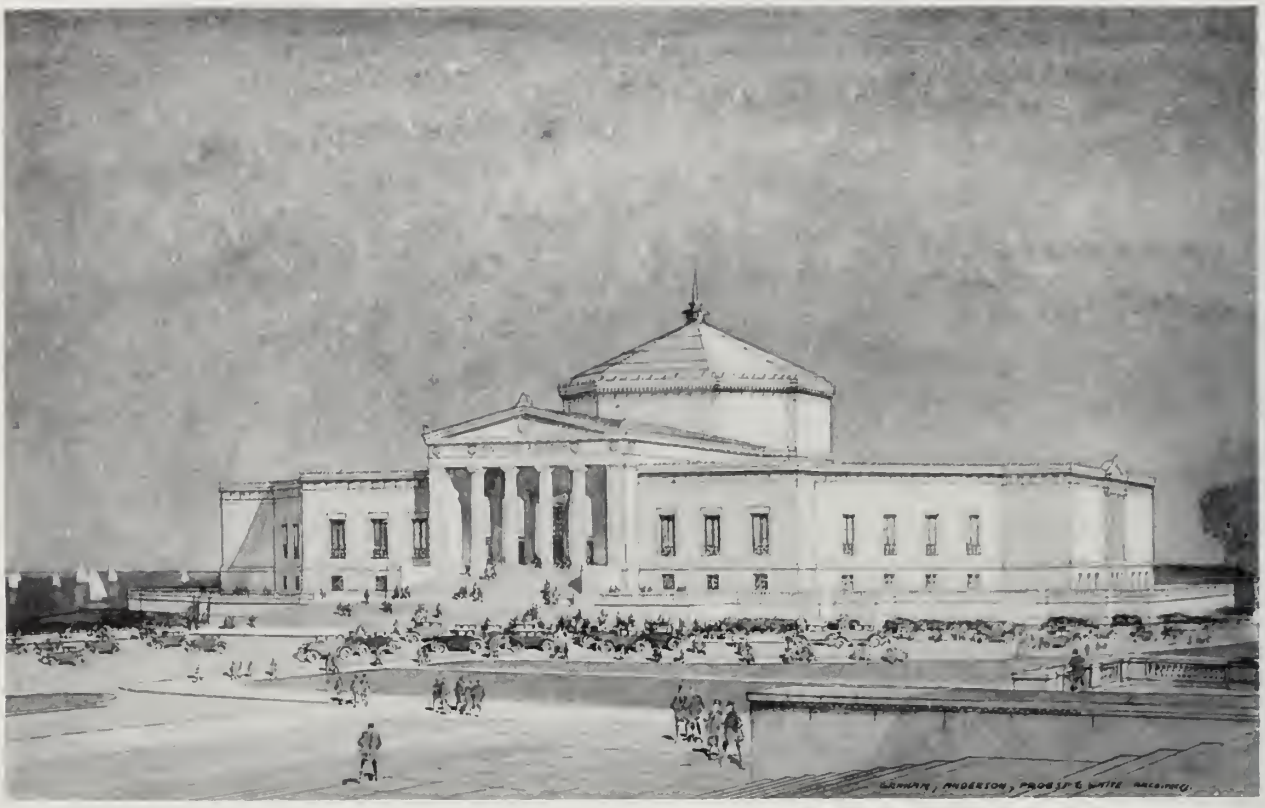
¶ Octagonal in shape, the exterior of Georgia marble, the building consists of a main floor, a basement mezzanine and a central tower which rises to a height of one hundred feet. Only the ground floor will be open to the public, the exhibits being so arranged that they may be seen without climbing any stairs or retracing steps.

¶ The Aquarium proper is 300 feet in diameter, exclusive of the terrace which is thirty feet wide. After passing through the front vestibule, the visitor will enter a spacious marble foyer hall, which opens into an octagonal rotunda also of marble, in the center of which is a forty-foot pool. This is to be arranged as a semi-tropical swamp. Radiating from the rotunda there are six main exhibition halls, each thirty feet wide and approximately ninety feet long. On one side of the foyer hall are situated the executive offices and lecture hall, and on the other side are a "balanced" aquarium room and the museum.

¶ There are 132 permanent wall tanks lining the walls of the main exhibition halls. They vary in capacity from 375 gallons to 13,500 gallons. Special care has been taken in lighting these tanks. The skylights are so arranged that the visitor will view the fish by means of reflected light. The largest tanks are thirty feet long, ten feet wide, and will hold six feet of water. There are, in addition, ninety-five reserve tanks as well as several portable tanks. The total capacity of all the permanent tanks in the building is about 500,000 gallons. Water will be supplied from four reservoirs in the basement, the total capacity of which is 2,000,000 gallons, half of which is to be sea water. This salt water will be brought from the Atlantic Ocean in 125 railroad tank cars.

¶ All of the pumps used will be of the centrifugal type, electrically driven. The Aquarium piping, which is of antimonial lead throughout, is divided into five separate systems that will supply heated and refrigerated salt water, and heated natural and refrigerated fresh water. About thirty per cent of the tanks are double-piped so as to allow such adjustments in the number of tanks in each system as are required by the character of the specimens on hand.

¶ Of special interest is the "balanced" aquarium room. This is decorated in colorful Japanese style to represent an open-air courtyard, lighted by eight large lanterns, each on a bamboo post. It is octagonal in shape with a central kiosk in which fancy goldfish will be exhibited. The main walls of this room will



contain sixty-five smaller aquaria which will be planted with aquatic life and in which "toy" tropical fishes will be exhibited. An innovation in this connection is the use of the new "violet ray" glass in all the skylights to insure a proper plant growth and a faithful rendition of color.

¶ Other interesting features are a small lecture hall, a hatchery, scientific laboratories and a museum of rare preserved fishes. Included in the regular equipment of the Aquarium will be a specially-built railroad fish car which, in effect, will be a traveling aquarium. This will be used for transporting fishes from the collecting grounds to the Shedd Aquarium. To insure rapid handling of the specimens at the Aquarium, there has been provided a driveway into and around the basement. Electric elevators and hoists, and an overhead tramway, will deliver the fishes, still in their traveling containers, direct to the tanks in which they are to be exhibited. The Aquarium will exhibit fishes and other aquatic life from every part of the United States, as well as a number of foreign species. In addition to the regular exhibits, it is expected that the Aquarium will send special expeditions to secure specimens hitherto unknown to public aquaria.

THE CHICAGO HISTORICAL SOCIETY

By

CHARLES B. PIKE

President

¶ The history of Chicago is a fascinating story of sacrifice, hardship, perseverance and unusual achievement. From a military outpost to the second largest city of the western world, within the short period of a hundred years, is an accomplishment unprecedented. At a time when eastern cities were well advanced in civic life and cultural development, Chicago was but a village of the plains, subject to Indian attacks and enduring the hardships and rigors of frontier life. Today her everchanging and impressive skyline is a challenge to this progressive age. The record of such an unusual city is of prime importance, not only to her own residents but to the people of America. To know how such achievements were made possible is not only interesting but invaluable in placing before men and women of the future the possibilities in store for citizens of vision, courage and determination.

¶ It is difficult when living in the midst of daily accomplishments to visualize the importance of the contemporaneous activities in the light of future events. To properly record these activities so that they may have their value for future generations is no mean task. Such foresight was present in a small group of men who in June of 1856, nineteen years after the chartering of Chicago as a city, met for the purpose of organizing the Chicago Historical Society. Their names should not be forgotten —William H. Brown, William B. Ogden, Jonathan Young Scammon, S. D. Ward, William Barry, Mahlon D. Ogden, Mark Skinner, Ezra B. McCagg, Mason Brayman, John H. Kinzie, George Manierre and C. H. Ray. The task was not an easy one. It required much patience and perseverance. The following February this Society became incorporated under the laws of Illinois. The organization grew quietly and steadily, ever faithful to its trust in the young city's growth.

¶ In 1868 the Society moved from its quarters in the Newberry building, North Wells and Kinzie Streets, to its present location at Dearborn and Ontario Streets. A new building had been erected which was said to be fireproof. On October 9, 1871, at the time of the great fire, this building was destroyed and many valuable volumes and records were burned.

¶ With undaunted courage the members renewed their efforts and brought together a new collection of historical material pertaining to Chicago and the Old Northwest Territory. On July 14, 1874, a second devastating fire visited Chicago and the new collection which the Society had acquired was destroyed. Temporary quarters were established and a second building was erected, in 1877, on a site adjacent to that of the present building at 632 North Dearborn Street. This building was wrecked by the Society to make way for the present building, the cornerstone of which was laid November 12, 1892. Dedication was on December 15, 1896. The second fire was a serious blow to the Society, but the work of building up its collection went forward. Today the institution has in its possession over 50,000 selected volumes of historical material, approximately the same number of rare and valuable manuscripts, over 3,000 newspapers and several thousand maps, prints and other historical items.

¶ The work of the Society has proceeded along two lines, the collecting of the written and printed records of the past and the collecting of pictures, prints and items that present this life objectively. In the Historical Library are many valuable and irreplaceable volumes, books long out of print and now practically unobtainable. There are original editions of many of the famous descriptions of travel and exploration in the West, as well as later re-

Chicago Loop District *after* Fire of 1871—*and*—Today

prints and editions of these famous travels, such as "The Jesuit Relations," showing the life of the early French missionaries; the journals of Father Marquette, La Salle, Hennepin and others; and of a later period, the travels of Jonathan Carver, the English voyager. The manuscript collection of the library supplements this printed material and contains many of the original letters and documents executed by these redoubtable pioneers. It forms a background for research work that will occupy students of history for years, as there are many points that still are obscure.

¶ While the object of the Society, in its founding, was to institute and encourage historical inquiry and to collect and preserve material of an historical nature, the institution has increased each year its scope of public service. These extensive collections are open to the public and can be used by students and others seeking historical information. The Museum and Library of the Society are open daily, excepting Sundays, from 9:00 A.M. until 5:00 P.M. On Sundays the Museum is open from 1:00 to 5:00 P.M. during the winter months.

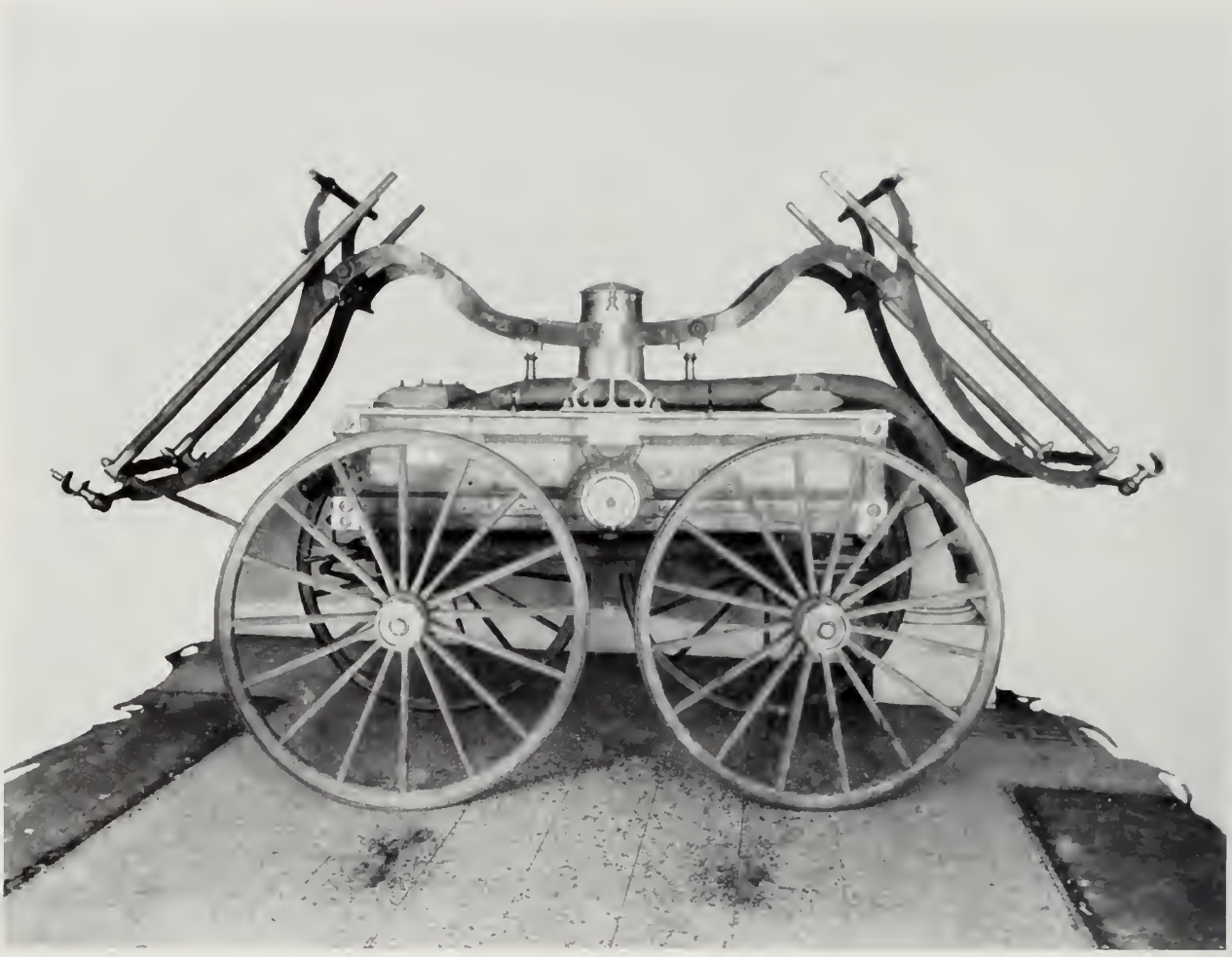
¶ The growing complexity and impersonality of modern life have given historical museums a new opportunity for service. The museum of history is no longer a closed institution whereby a few receive the benefit of the lessons of the past. Instructors endeavoring to instill into the minds of their various student groups the principles underlying our national civic consciousness, find the historical museum and library of inestimable value. For example —free lectures, entertainment and historical instruction given to the school children of Chicago is a type of Americanizing work which has exceptional value. It is the aim of the Chicago Historical Society to make history a living thing.

¶ The Chicago Historical Society realizes that historical research is made vital through the presence of historic items and objects associated

Lincoln's Death Bed in Chicago Historical Society Collection

with men and events of history. It has, therefore, made an effort to collect and preserve such outstanding objects as personal effects of Abraham Lincoln, including the bed on which he died in Washington, still showing the stains of blood from the martyred President's wound, and the coat he wore on the night of his assassination. Likewise, in the case of George Washington, there have been collected his inaugural coat of velvet, his vest, sword, spyglass, medicine case and many other objects of an intimate nature.

¶ The present building of the Society is inadequate for rendering proper public service. The building is inaccessible, antiquated and unsuitable for carrying on modern educational methods. The State of Illinois recognized that the present location of the Historical Society building was not such as to make possible adequate public service. It was felt that such a Historical Library and Museum building should be erected in a public park free from noise, dirt, and conflagration, thus making safe for posterity the priceless historical material carefully collected through the years. Legislation was passed in February of 1928, permitting the Lincoln Park Commissioners to allocate a site for a new Historical Library and Museum building worthy of Chicago and its history. The Lincoln Park Commissioners on July 10, 1928, granted a site near North Avenue and Clark Street facing the St. Gaudens' Statue of Lincoln. The new building will give opportunity to show not only the usual interesting historical material, but will provide for the historical review of various cultural aspects of Chicago's life.



"Fire King"

¶ Preservation of historic sites forms an important phase of the Historical Society's work. With the rapid development of modern buildings, old landmarks are passing away. It is the responsibility of the Historical Society to determine accurately where proper markings should be placed, thus preserving historic evidences for future generations.

¶ An important feature of the Historical Museum is the enjoyment and amusement given to children. Perhaps no other type of museum has an equal appeal in this respect. To see how folks lived in frontier days, to touch the old "prairie schooner," to see the replica of "Old Fort Dearborn" and a real log cabin completely equipped as in frontier times, is something long to be remembered. The old fire engine named "Fire King" is a constant source of wonder and delight to the younger generation.

¶ The future of the Historical Society bids fair to be most useful in the promotion of civic, educational and patriotic activities. Its function in these several fields should grow in importance and effectiveness with the passing years. The Society has weathered many discouragements and setbacks, but ever has been faithful to the task before it, and in days to come it will be looked upon as a shrine upon which have been preserved many things that are sacred to a great city and her people.

A MUSEUM TO TRACE THE TECHNICAL ASCENT OF MAN

By

WALDEMAR KAEMPFFERT

Director
Museum of Science and Industry

¶ Struck by the popularity of European technical museums, Mr. Julius Rosenwald decided to establish in Chicago such an institution which would utilize the experience of Europe as a foundation. He laid his plan before a group of representative business men, and expressed his willingness to endow an American technical museum with the sum of $3,000,000 to be spent for equipment alone. As a result of the interest thus aroused, the community took immediate action. The South Park Commissioners issued bonds to the amount of $5,000,000 for the purpose of providing a suitable structure in stone, steel and cement. A contract for its erection was signed in October of 1929. It is to arise on the site of the old Fine Arts building in the north end of Jackson Park. That crumbling edifice, of classical beauty, is to be reproduced in its exterior design.

¶ In the technical museums of Europe, wheels move, valves seat and unseat themselves, meshing gears cause large masses to rise and fall rhythmically almost under the conditions that prevail in a factory. Everywhere there are push-buttons, crank-handles and levers that the curious visitors may manipulate and thus start and stop the smaller models. The museums are alive with mechanical demonstration.

¶ Similarly, historic locomotives will pant in the Museum as they panted a century ago, to show how mechanical transportation on rails began; and the beams of old engines will rock to show how cumbrously and inefficiently steam was applied before Watt's time. The chasm between these obsolete titans and the modern, silent, encased steam-turbine will be bridged by moving reproductions of the inventions of Watt, Hornblower, Corliss and Parsons. Edison's Pearl Street power plant in New York also will be there in miniature—the first of the central stations that ushered in the electrical era of industry; and so will the telegraphs, telephone, radio-signaling devices, telescopes, plows, harvesters, and the thousands of inventions without which modern civilization would seem empty.

¶ Scientific principles and inventions are discovered and made to be utilized. What do they mean in our lives? It is this question that the Rosenwald Industrial Museum intends to answer, as well as to explain science and industry technologically. Herbert Spencer first pointed out that instruments and machines are but extensions of the human organs, and it is thus that many of them must be interpreted if their social significance is to be fully grasped. What is a steam-actuated, "orange-peel" bucket but a huge steel hand which clutches five tons of ore or coal? What is any gantry crane but a gigantic system of steel muscles controlled by the living brain and hands of an intelligent workman whose chief exertion is the closing and opening of a switch? Telescopes and microscopes—what are they but amplifications of the human eye? The historian Fairgreave has driven home the social meaning of these extensions of the human body by strikingly contrasting the society of ancient Greece with

Fine Arts Building—To Be Rebuilt for Industrial Museum

that of our own day in terms of man-power. In the time of Pericles a Greek freeman commanded the services of five helots or slaves—the equivalent of about half a horse-power; and the best grain mill in the heydey of Athens produced roughly the equivalent of five barrels of flour a day. The average freeborn American of our time has at least sixty slaves at his beck and call, in the form of machines. In a steel mill he may control ten thousand horse-power. Brains have become more important than muscles. Sweep away these automata and the United States alone would have to support a population at least sixty times greater than it has, if the average American is to maintain himself in what he has come to consider economic decency and comfort. Thus we are enabled to picture in imagination the social and economic consequences that have attended the introduction and evolution of industrial processes. Thus it is that the "Museum of Science and Industry, Founded by Julius Rosenwald," will undertake to interpret the machine.

¶ Even the nations of this "machine age" would starve were it not for the aid of science and engineering—starve for lack of chemical fertilizers and mechanical plows, sowers and reapers, for lack of steamships and railway trains, for lack of methods whereby foods may be preserved so that the plenty of fat years may be enjoyed in the lean. So the thousands of visitors who will pass in and out of the Museum of Science and Industry in the course of a month will acquire a vivid sense of what engineering and natural resources mean in their own lives. The harvester and reaper, locomotives and steamships will cease to be merely ingenious combinations of machine elements, and will become saviors of the human race.

¶ Intimately connected with this feeding of

the world is the problem of keeping it in health—of staving off disease. The introduction of the steam engine gave us the factory and mass production, and the steam-engine in turn made it necessary to huddle masses of humanity in industrial centers. Social problems were presented which could be solved only by science. Without its aid tuberculosis and typhoid fever would make it impossible to house workers decently or to provide them with the clean, well-lighted factories and offices in which they now work. The bacteriologist and the sanitary engineer are doctors of civilization. Water-pipes and drainage systems, sky-scrapers and smoke-consumers will therefore appear in that section of the Museum which will be devoted to the evolution of the city, not alone as interesting applications of science but as the means whereby an industrial society is enabled to clothe and feed itself without committing mass suicide.

¶ As the social implications of science, engineering and industry are thus developed, the museum visitor will realize that the nature of technological research is often determined by the conditions under which men live. Even those who know something of the history of technology are not all aware that, as early as the reign of Queen Elizabeth, England's forests had been hewn down and that Englishmen often were dependent on coal as a household and industrial fuel. The mines, mere open pits for the most part, were drowned; and the horse-pumps of the time were unable to drain them. By the early eighteenth century the situation was critical. A great invention, some mechanical substitute for the horse, was needed. The economic pressure acted on the brains of England's engineers for at least a century. Two engineers, Newcomen and Savery, proved equal to the task of devising a steam-pump which would surpass the horse as an engine.

¶ This Museum will dramatize the story of this social and economic pressure. Imagine a little stage on which as many as 500 miniature horses are shown hopelessly struggling with the rising water of a drowned mine. In the neighborhood, smithies and primitive workshops stand idle for lack of fuel and peasants shiver in their huts. A suitably-worded label will amplify what little is not self-evident in this staging of England's plight. Perhaps a few statistics may also be required to drive home the full significance of the scene, especially for the university student of economics. We picture a crisis, a situation which can be surmounted only by a highly inventive engineer. We are then ready to study the surmounting means—the Newcomen-Savery engine in which steam is crudely and wastefully condensed within the cylinder itself by means of cold water, so that atmospheric pressure can drive the piston downward.

¶ The next step is the invention of the separate condenser by James Watt, instrument maker to the University of Glasgow. His technical and social relation to the past is now clear. We realize at once how utterly impossible it was for him to have given the world the steam-engine that bears his name without the structure of Newcomen and Savery to build upon. Then follows the most extraordinary social and economic transformation that the world ever has seen—what economists call the "industrial revolution." The Museum will depict what it meant to place mechanical energy at the disposal of industry. Coal becomes an even more precious natural resource. Henceforth it is energy. The visitor who leaves the museum will come away with the impression that James Watt was something more than a great inventor—that he did more to transform the face of the earth and mold social institutions than did Alexander the Great, Julius Caesar and Napoleon Bonaparte; and that history is made in the laboratory and workshop as well as on the battle field.

¶ When we consider the social implications of the engineer's work, the real meaning of this dawning electrical age becomes apparent. The rise of electricity must be traced technically if for no other reason than to show that for centuries electricity was of no social and economic importance. There probably will be a reproduction of a corner of the famous laboratory in which Sir Humphry Davy and Michael Faraday conducted their classic

researches; and the visitor will perhaps imagine that he is himself Faraday when he performs the very experiments that enabled the greatest of experimenters to lay the foundations of modern electrical engineering. A new social world will be revealed to him when the visitor sees what Faraday, Wheatstone, Morse, Bell, Edison, Siemens and Marconi accomplished with discoveries that seemed to have but merely a scientific value at the time they were made. Energy no longer is localized by coal. It is shot hither and thither along wires and flashed through empty space. The visitor will understand the significance of the transition period through which we now are passing, a period in which electrical energy generated by twenty and even fifty central stations located in a dozen states is "pooled" to form a great invisible reservoir which may be tapped at will so that an excess in one city may make good a deficiency in another. Three-dimensional models, some of which will move incessantly, will make it clear to him that he is living in an electrical transition period and that, like James Watt, the electrical engineer is molding society and rearranging the economic structure.

¶ One of the most interesting halls will be that devoted to current phases of science and technology. The problem of utilizing the water of the Great Lakes is now a matter of national and municipal concern. Were the Museum in existence today, a model would reveal the exact nature of the problem and also the more feasible solutions—reveal them with the aid of actual water in a miniature lake. That special hall will be a place where the news of technology will be concretely expressed in models.

¶ In a museum which thus addresses itself to the task of interpreting technology the scientist, engineer or inventor will cease to be the familiar "wizard" and will assume a new but less deceptive glamour. His indebtedness to tradition and to the stimulus of his time will become apparent. His genius never will be questioned, but the technical heritage of the race will be correctly appreciated. The public will see for itself that motion pictures, radio broadcasting and television are the products of a long evolution of which the progressive steps will be illustrated in the Museum. As he wanders figuratively through centuries of human technical and social progress, as he sees how the technical mind has developed such remarkable primitive inventions as the wheel and the sail, the visitor will realize how much our modern scientists, engineers and inventors owe to the sheer momentum of the past. He will see also how one science has borrowed from another—how the metallurgist, for example, has imbibed the principles of chemistry until he has become a chemist himself; how the laws of Newton, once regarded as purely theoretical expressions of relationships of masses to one another, have become the foundation stones of physics and engineering.

¶ When it comes to tracing the evolution of railway rolling stock, the Museum will be faced with a difficulty. In European museums the policy of exhibiting full-sized machines has proved to be the best. Yet, despite its 400,000 square feet of floor space, the Chicago institution will not be large enough to contain a full-sized reproduction of every important railway vehicle from the first carriage, which was hauled on the Stockton and Darlington Railroad over a hundred years ago and bears all the evidence of its horse ancestry, to the modern steel Pullman. So time and space must be telescoped. A carriage will be constructed which will be divided into periods. In the first compartment you may experience all the sensations of bumping over the poorly ballasted rail of the forties; for that compartment will be mechanically shaken, to impart the realities of a railway journey in the days of our grandfathers. As you look out of the window you may see the landscape of the early time—a realistic painting, ingeniously illuminated, traveling endlessly on rollers. The last compartment will be that of a modern sleeping carriage. Its motion will be hardly perceptible, and from its windows the painted skyscrapers of Chicago will be visible.

¶ It is likewise impossible to trace the development of pavements, water supply and sewage disposal with full-sized reproductions of streets. So there will be a street which will

Groups of Living Models Will Appear in Some Exhibits. This One Presents Alessandro Volta (1745-1827) Explaining His Important Discoveries in Electrical Science

be perhaps fifty feet long and which will be divided into periods of time. In two minutes the visitor will walk from the seventeenth century to the twentieth. He will see a gentleman of the seventeenth century carried in a chair, through the mud of London, with link-boys to light him home; he will note the absence of an adequate water supply and a drainage system. As he steps into the next division it will strike him that oil lamps partially illuminate the gloomy streets and that footway and carriageway have improved. As he walks on, he will be impressed with the change wrought by the introduction of gas and electricity, of water and sewer mains and of better houses, all bearing an obvious technical relation to the improvements of the street. Finally he will enter a few feet of Michigan Avenue, with shop-windows and highway brilliantly illuminated; with hard, smooth asphalt beneath his feet, and a roadway honeycombed with conduits for cables that deliver energy or convey messages.

¶ The wax manikin is still inevitable. Yet the experiment will be made, at first on a small scale because of the expense involved, of substituting here and there living flesh and blood for wax. If we are to show how life has been affected by machines it should be with the aid of life itself. In a large auditorium in which distinguished sociologists, economists, scientists and engineers will deliver popular lectures, an opportunity will be presented to test the possibilities of this innovation in museum technique. If a distinguished anthropologist lectures on primitive inventions he will be assisted, if need be, by skilled and suitably costumed pantomimists who will enact some phases of the precarious lives led by huntsmen forty thousand years ago.

¶ The principles of science are not yet the possession of the many, even though the age is essentially scientific. The effect of scientific research, invention and industrial progress is felt rather than understood. There is no lack of interest in technology. But the people have no opportunity to gratify that interest, no opportunity to survey the technical and social progress of the past and evaluate the status of the present. It is the primary purpose of the Museum of Science and Industry to create that opportunity.

THE ADLER PLANETARIUM AND ASTRONOMICAL MUSEUM

By
PHILIP FOX
Director

"Sir,
We are told, and, if I remember right, it is also your Opinion, that three of the finest sights in Nature, are a rising Sun at Sea, a verdant Landskip with a Rainbow, and a clear Star-light Evening."
—*Thomas Wright, 1750*

¶ Lake Michigan provides Chicago with the glorious opportunity, rare for an inland city, of viewing the first of these wonders. The great parks provide the verdant landscape for the second. But the very greatness of Chicago, with its vast industrial area and millions of people, its night sky flooded with artificial light, precludes the opportunity to see the greatest of natural wonders, the starry heavens.

¶ Sixty-three years ago, just as the country was emerging from the throes of the Civil War, a group of citizens of Chicago formed the Chicago Astronomical Society and brought to the city the greatest refracting telescope then in existence, the eighteen and one-half inch lens of the Dearborn Observatory. Of that time it has been written: "Nor should it be forgotten that it was but a scant half century since the first settlement of Chicago, when the chief outlook was for hostile Indians, to the establishment of the Dearborn Observatory and viewing the heavens with the most powerful refractor of the World."

¶ In order to re-awaken interest in the science of astronomy and the knowledge of the heavens, Mr. Max Adler has presented to Chicago a Planetarium and Astronomical Museum. An imposing edifice in which to house this institution is being erected near the Field Museum and the Shedd Aquarium; and with them forms a splendid trinity for the study of "the Heavens above, the Earth beneath, and the Waters under the Earth."

¶ As the name implies, the building serves a dual purpose. Its shape is a regular dodecagon. On the exterior faces, in succession, are the sculptured representations of the Signs of the Zodiac. The exterior diameter of the building is 160 feet. Centrally located within it is a circular hall seventy feet in diameter, surmounted by a hemispherical dome. Within this central hall is the planetarium proper. The wide surrounding corridor contains the Museum.

¶ A planetarium is a theater of the sky, in which astronomy is dramatized. The stage is a great dome. The actors are the stars, the great galaxy, the planets, the Sun and Moon, the nebulæ and clusters. The constellations take their places in the vault of the dome; the planets, Sun and Moon thread their complex but orderly courses among them; the Moon presents its sequence of phases; the seasons follow their routine. All the motions of the heavenly bodies and the phenomena which result from them are presented. Astronomy unfolds its mystery, yet the majesty remains.

¶ The great, grotesque instrument on its steel stilts, studded with lenses numerous as the facets in the eye of a fly, projects the stars as brilliant points on the interior surface of the great dome. They blaze there with so perfect illusion that all sense of enclosure is lost; and one is in the open, under the starlit sky. The projector, in its perfected form, has one hundred and nineteen separate lenses. Thirty-two are for the stars; eighteen are for the nebulæ, star clusters and the brightest star, Sirius; thirty-two are for constellation names; eighteen are for the members of the solar system; and nineteen for various reference

points and circles. The simple projection of the constellations will afford opportunity for a revival of knowledge of the sky. Ancient myths are there preserved in their most enduring form.

¶ Electric motors drive the mechanism to reproduce the motions of the heavenly bodies. The diurnal and annual motions of the Earth and their effects are readily realized. Celestial motions or cycles requiring years or centuries can be reproduced in as many minutes. The acceleration detracts nothing from the majesty of nature's slow motions; but on the contrary, aids toward the understanding of them. The different aspects of the sky as seen from different terrestrial stations can be achieved by regulation of the instrument. The increasing elevation of the Pole Star as one travels toward the north is clearly revealed. The sky can be seen as it appears in the Southern Hemisphere with the Southern Cross high in the heavens. By another adjustment, the effect of the precession of the equinoxes can be shown and we can see the skies as they appeared to Hipparchus who discovered and evaluated this precession; the skies as described by Homer can be reproduced; the skies of the time of the Pyramid builders, when Thuban was the Pole Star; or of that distant future date when the gorgeous Vega will point out the location of the North Pole. "The great beauties of the skies are revealed with such force and effectiveness that the onlooker exclaims with the Psalmist, 'The Heavens declare the glory of God and the firmament showeth his handiwork'."

¶ In the Museum there will be historical instruments and documents; working models of observatories and telescopes; spectroscopes in operation, to demonstrate the laws of spectroscopy and their application to solar and stellar physics; a spectrohelioscope; horological instruments; sun dials; clocks and time recorders; instruments of navigation; machines which may be set in action, grinding lenses or mirrors; devices for showing dynamical laws; machines for measurement and computation; and numerous transparencies depicting the greatest achievements in astronomical photography. Exhibits will demonstrate, so far as possible, the methods and procedure of observation; and will afford clear insight into the achievements of astronomical research.

¶ Astronomical research will have an important place in the program of this institution.

¶ America long has stood on the frontier of astronomical research, and in such studies Chicago institutions have played important roles. It has been said, however, that we have lingered behind in the popularization of the science. With the Adler Planetarium and Museum, Chicago has stepped into the forefront in the popular presentation of astronomy; and in such way that the educational value and the æsthetic inspiration share the field equally.

UNDERWOOD AND UNDERWOOD

ARCHITECTURE OF AN EXPANDING METROPOLIS AND SOME OF ITS TOWERS

By

BENJAMIN H. MARSHALL

Architect and Builder

¶ Alfred Agache, one of France's famous urbanists, said when he visited Chicago in 1904 that it left upon him a very painful impression. He stated that it seemed a veritable urban hell and without ideals. After twenty-five years, he admits that he finds the city completely metamorphosed, conceding that with the tremendous changes caused by the development of our city planning scheme, by an effective zoning law and by the development of important architectural civic centers, Chicago has become not only the most interesting city in the United States, but that it is fast becoming one of the most beautiful cities in the world.

¶ The development of Chicago's architecture would appear to be but a mushroom growth, it has covered so comparatively few years. Certainly this development is extremely interesting to study. The city's first buildings of importance and permanence were built in what we now designate as the "Reign of Terror" in architecture. This was a period of American adaptation of the Victorian style. Such buildings as the original Palmer House, the Great Northern and Stratford Hotels, and the Board of Trade are typical examples of that early development. Leaders in that phase of Chicago building were Richardson and Sullivan. The latter had more than just the usual architect's pride in building; he was fired with an intense civic pride as well. The Auditorium Hotel is an example of his work.

¶ About that time Chicago held its World's Fair. The type of exposition buildings erected, such as the Fine Arts structure built by the late Daniel Hudson Burnham, and the Transportation Building built by Adler & Sullivan, although greatly diversified in style and character, were marked steps in advance. They led the way, and exerted tremendous influence in the architectural development that followed. The erection of the Art Institute in 1893, and the Public Library in 1891 and 1892, by the firm of Shepley, Rutan & Coolidge, furthered the architectural development of the city. These are still considered outstanding among Chicago's better buildings.

¶ The character of architecture in Chicago's business district was soon revolutionized with Burnham's work in developing the large, fireproof office building. The First National Bank, the Continental & Commercial Bank and the Railway Exchange, built by Burnham, are of this period. The People's Gas Building and the old Commercial Bank Building now known as the Edison Building were erected. Chicago had become a large, modern city instead of an over-grown western town. This was a time of rapid development. The work of Graham, Anderson, Probst & White, and of Holabird & Roche, while somewhat following the footsteps of D. H. Burnham, represented another step forward. In this period the Blackstone Hotel was built. It was undoubtedly the most beautiful structure then on the city's lake front. The Illinois Chapter of the American Institute of Architects awarded Marshall & Fox a gold medal for this work. The city was growing by leaps and bounds. Architects and far-sighted citizens realized the

The Palmolive Building

The Federal Building

Buckingham Memorial Fountain

necessity for proper civic development. The result was a comprehensive scheme of general city planning for guidance.

¶ Then came the devising and enforcing of a strict zoning law. This last step has probably done more than any other toward changing the general character of Chicago architecture. Even more outstanding are the changes that have occurred within the past six years. A great city of towers has been erected—the Tribune Tower, Mather Tower, Wrigley Building, Bankers' Building, Morrison Hotel, the Pure Oil Building, Willoughby Building, Pittsfield Building, Chicago Temple, 20 North Wacker Drive (Chicago Civic Opera), the Carbide Tower, the structure known as 333 North Michigan Avenue, Palmolive Building, the Steuben Club, the Medinah Athletic Club, Foreman National Bank, One La Salle Street building and the new Board of Trade edifice.

¶ The best panorama of this modern Chicago is seen from far out on the lake. At sunrise it far excels the most imaginative drawings of Maxfield Parrish picturing scenes from the Arabian Nights' tales. Hundreds of towers and miniatures in their various colors and outlines, in the glory of the morning sun over the great expanse of Lake Michigan's waters, is the real picture of the Chicago of today.

¶ Chicago is a beautiful city. But what of its permanence? Suppose a great catastrophe should come upon us. Suppose the entire city were left without care for a few hundred years. What would be found here by the archeologists of, let us say, 2,500 A. D.? What would remain of this present civilization and its architecture? Little except piles of building masonry and rusting steel members. The architectural monuments that would remain to puzzle the student of that day and age would be the great concrete grain elevators and bridge structures. The historian would pronounce these as the lasting monuments of twentieth

The Pure Oil Building

MICHIGAN BOULEVARD *at* ART INSTITUTE

century civilization! These would live because they are a true expression of certain needs put in permanent materials. No one would attempt to hide the fact that what is known as the skeleton steel type of construction, covered with a thin veneer of stone, terra cotta or brick, will disintegrate. The veneered faces on our fireproof buildings will gradually deteriorate in a comparatively few years, and fall off unless constantly repaired. Further than that, the steel bones do rust; and before many years they are going to need much attention.

¶ Let us take our lesson from what is left for the study of our imaginary archeologist of the year 2,500. Let us build our commercial structures of concrete frames with metal windows placed in openings, and with all ornament cast in the concrete structure in color, or otherwise. Let us dress the concrete so that it will give a finished and beautiful surface. This will insure buildings both permanent and beautiful. It will be a true expression of a lasting type of architecture—a type of permanent construction which undoubtedly has to come.

PLANS FOR EXPANSION OF CITY INTO SURROUNDING AREA

By

D. H. BURNHAM*

President
Chicago Regional Planning Association

¶ With the region of Chicago filling up with residents at the rate of more than a million every decade, it is evident that the soundness of this population growth and the success of industries in the region must be assured by the proper physical provision for this increase, as far into the future as we can prepare for it. Working quietly in the region of Chicago, a circle roughly fifty miles from the loop, is a rapidly growing force of regional planners set in motion and supported by public officials and business men in every part of the region. This force is fast bringing together the many separate plans for future developments, both public and private; and out of them it is forming a number of comprehensive programs for orderly growth.

¶ Careful estimates of the future population of this area, including fifteen counties (three in Indiana, three in Wisconsin and nine in Illinois), in which are more than 280 cities and villages, show that by 1950 there will be a total of between 7,500,000 and 8,000,000 inhabitants, more than double the 1920 census figures. Chicago is expected to have 4,500,000 residents and Cook County to have 5,300,000. The remainder are expected to be in the other fourteen counties. For this tremendous population, and in exact relation to it, many facilities must be provided such as highways and streets, parks, forest preserves, sewers, sewage treatment plants, water supplies, electric power, gas, and systems of telephone connections.

¶ The Chicago Regional Planning Association has brought together the outstanding local men of experience and authority on these subjects. They are contributing their time and thought not only to the shaping of sound policies and definite plans, but also to carrying them out by actual construction.

¶ The problem of sanitation, water supply and drainage in the Chicago region is the one which will control the future population to a larger degree than any other factor. Roads can be built, zoning can be done, parks can be laid out, but unless adequate provision is made for supplying the citizens of the region with clean, wholesome water and adequate provision for proper treatment and disposal of sewage, the capacity of the land in this congested area may be definitely limited. Already some cities and villages close to the congested center have unsatisfactory water supplies, although they are within a very few miles of an inexhaustible supply, Lake Michigan. Engineers, representatives of industries, members of city and village councils, have in hand the task of planning and building the works that will insure adequate and satisfactory water for those areas of the region which will be populated during the coming decades.

*The writer of this article is a son of the late Daniel Hudson Burnham, referred to elsewhere in this book as director of works of the World's Fair in 1893, and also as "author of the Chicago Plan."

Much of the Charm of Indiana Dunes State Park Is From the Evergreens
Here Are Shown the Pine and Juniper

¶ Under the direction of a regional committee on highways, which includes federal, state, county and municipal officials, there was compiled a composite map showing the paved highways and those expected to be paved by every state and county in the region. The next step was to plan connections of routes which are proposed to be paved, at state and county lines where they do not now connect. The third step was to bring city and village officials into touch with the county and state officials so that the former might coordinate their street plans to fit the county and state highway plans. During the four years in which the Regional Planning Association has been active, the highway systems of Illinois, Wisconsin and Indiana have been so coordinated as to develop a system of more than 2,500 miles of paved road with few breaks between one county and another or at the lines between states. More than 1,000 miles of additional pavement are planned to be finished by the end of 1930. Much of the existing mileage will be widened from eighteen and twenty foot widths to forty feet or more.

¶ For the future street and highway system, plans have been made which are producing rapidly a comprehensive system of boulevards, parkways and forestways. In three years, over 150 miles of boulevard rights of way 200 feet wide have been dedicated by the property owners in accordance with this plan. In Cook County the Forest Preserve Commissioners have been acquiring broad belts of land as connecting links between isolated forest preserves so that the tracts may be connected into a unified system of preserves. In these belts of connecting land will be trails, bridle paths and eventually driveways. On the other broad rights of way future pavement is to be laid as needed. Trees will be planted where pavement will not interfere. As the communities grow, the arteries of traffic will have been provided at far less expense and in better locations than would be the case if they had to be widened or opened after the area was built up.

¶ Carefully watching the development of the region, the zoning authorities of municipalities, as well as the county authorities, have been planning sufficient industrial areas for the future, properly located so as to preserve adequate and attractive residential areas. Chicago and its environs are essentially industrial, and plenty of industrial sites must be set aside so that the region may maintain its supremacy in this respect. This has been done by the Regional Planning Association, collaborating with the zoning commissions, in promoting the adoption of zoning ordinances. Essential in zoning is the maintenance of some areas for strictly single family use, others for apartment use, still others for business, all being tributary to the industrial areas. A correct balance among these different uses of land is the objective of the committee of zoning authorities which makes up that department of the association.

¶ The Airways Committee of the Regional Planning Association is made up of practical flyers who are familiar with the needs of aviation in the region. These men have located approximately 200 landing field sites in the fifteen counties. It is obvious that there will hardly be that many airports in the region for many years, but they have been located so as to hasten the acquiring of the best of them for early development. Engineers have prepared detailed maps of each of these potential landing field sites, so as to expedite the development of private airports. Large, well-equipped airports along all the airways, which will lead from Chicago, like spokes of a wheel, will be completed shortly, and many private aviation "country" clubs will be established.

¶ A fascinating division of the plans for the region is that devoted to the acquisition of city and village park land and playgrounds; to township and county parks and forest preserves, and to state parks and preserves. In 1929 there are 52,000 acres of parks, playgrounds and forest preserves in public ownership. The objective for 1950 is 140,000 acres. Instead of 40,000 acres of state and county parks,

In Southern Part of the Cook County Forest Preserve

there must be 65,000; and instead of 12,000 acres of city and village parks and playgrounds, there must be 75,000, to supply the actual needs of the community for active recreation. During the four years of regional planning work, two Illinois counties have started acquiring forest preserves. Two Wisconsin counties have acquired their first county parks. Indiana has acquired and begun developing the Dunes State Park, much enjoyed by visitors from Chicago.

¶ Cook County, Illinois, which is the leader of all counties of the country in the possession of forest preserve lands, now owns over 32,000 acres of such preserves, and rapidly is completing the acquisition of the remaining 3,000 acres contemplated in its plan. Two years ago the Board of Cook County Forest Preserve Commissioners appointed a special advisory committee of citizens to plan with them the future use and development of the preserves. The resulting plan, adopted in January, 1929, included as a major feature a reforestation program to replace lost timber by the planting of four million trees; and the maintenance of certain open areas as playfields, athletic centers, picnic areas and golf courses so that the timbered areas may not be destroyed by the hundreds of thousands of visitors who crowd the preserves on Saturdays, Sundays and holidays.

¶ While the population is spreading outward from Chicago into the suburban counties and cities, the inhabitants are profiting by the experiences in the closer built areas and are acquiring their recreation acreages before the cost of land mounts too high. It is expected that during the decade between 1930 and 1940 great strides will be made in providing lands needed by the future population of the region for recreation purposes. With such appropriate plans, and with so much already accomplished in accord with them, it does not seem too optimistic to believe that the region of Chicago will continue in the lead as the best-laid-out metropolitan area in the world.

AIDS TO HUMAN WELFARE AS PROVIDED IN CHICAGO

By

EDWARD L. RYERSON, JR.

President
Chicago Council of Social Agencies

¶ In the welfare of its human beings lies the strength of a city. If ignored, the operation of this truth cuts deeply and dangerously into the life channels of human activity and progress. In any great city the significance of this truth stands out in bold relief along the pathway of history made by the sharp contrasts of progress and poverty, efficiency and ignorance, achievement and failure, abundance and desperate need. The city of the fullest life and strength is that one whose citizens are stimulated and encouraged to understand and engage in the operation of the principle which contends for the welfare of those less fortunate, through the generous impulses of those more fortunate.

¶ In Chicago, as in all great cities of our country, the charitable impulses of her citizens are carried into helpful effect through organized services known broadly as social work. The neighborly ministrations to those in need and difficulty, formerly performed by sympathetic neighbors in their individual capacities, are now the tasks of a specially equipped group known as social workers. While there is nothing new about the impulses underlying social work of today, its performance in the complex state of our society is based upon special training of those engaged in it so that the "adjustment of human relations" is raised to a profession similar, perhaps, to that of the efficiency engineer who discovers and adjusts the leaks and losses in the processes of industry. The task of organized social work and the coming of the social worker are the product of an age that demands efficiency in every undertaking of life.

¶ The history of Chicago's early humanitarian work is the history of her misfortunes. The curve of the development of Chicago's welfare agencies follows closely the course of her devastating disasters and finally levels off into a continuous line of day-by-day service, attending the usual needs of society and capable of expansion and modification to meet any unforeseen catastrophe. Prior to the Civil War and stimulated by the panic of 1857, a few and scattered charitable institutions were established. They were mainly hospitals to care for the victims of cholera and smallpox, and few were destined to survive any great length of time. The Chicago Orphan Asylum, opened in 1849, has the distinction of being the oldest permanent charitable institution in Chicago. The only hospitals established prior to 1860 which are still in existence are the United States Marine Hospital, opened in 1851, and the Mercy Hospital, established in 1853. In the same year, the Chicago Home for the Friendless came into existence as a shelter for homeless women and children. It was followed closely by the Illinois Eye and Ear Infirmary, the House of the Good Shepherd, the Chicago Nursery and Half Orphan Asylum, and the Old People's Home of the City of Chicago.

¶ In the wake of the Civil War came a widespread demand for the organization of material relief for suffering people. Many special relief organizations had sprung into existence during the desperate conditions attendant upon the war, creating a problem in their support and in the operations of their separate activities. By

Cook County Hospital

the year 1871, a union of these many relief organizations into the Chicago Relief and Aid Society, of which the United Charities of Chicago is the direct descendant, was accomplished. The Aid Society solved not only the relief problems growing out of the war, but also was prepared to assume the tragic burdens incident upon the great Chicago fire.

¶ From those early human welfare developments, characterized mainly as institutions to care for the sick, for homeless children, for the dependent aged and for the relief of the poor in their own homes, has grown a veritable network of organized services carried on by private philanthropy and by public agencies supported from public taxes. There are in the neighborhood of 350 substantial humanitarian organizations, public and private, serving Chicago. Those agencies may be grouped, according to their particular purposes, as follows: Child welfare, family welfare, health, education and group work including social settlements, community centers, recreation, and work for boys and girls. They comprehend in their composite services every known form of human need. The one hundred hospitals, of which about seventy do charitable work, offer to the people of Chicago 26,000 beds. Children in need of care and protection may find them in the sixty or more institutions and agencies equipped to care for 6,000 to 7,000 children. Tens of thousands of families in distress are given relief and constructive help by a half dozen family service organizations. No one can estimate accurately the far-reaching effect of those activities participated in by boys and girls, young persons and adults through the open doors of the social settlements, neighborhood centers, boys' and girls' clubs and many other groups. Well over 100,000 persons in need of some kind of assistance or opportunity for betterment which they are not able to provide for themselves,

secure that assistance each year through these channels of humanitarian service.

¶ The annual cost of welfare work to Chicago citizens, as philanthropists and as taxpayers, is approximately fifty million dollars. There is a fair and equal balance maintained in this cost, between that paid from public taxes and that met from private philanthropic sources. Work of an educational and character-developing nature leads the welfare procession, claiming about fifty per cent of the total spent. Health work follows with thirty-three per cent. Care and protection of children and service to dependent families each requires about nine per cent of the welfare budget. The total net assets of Chicago's welfare institutions including capital gifts, buildings and equipment, property in use, and investments for income purposes reaches somewhat over four hundred million dollars.

¶ The building of this formidable structure for humanitarian service to Chicago is the work of many minds and hands. The sources of its support are as varied as the interests and civic tastes and responsibilities of men and women. The structure is the composite expression of Chicagoans stimulated and influenced by race, religion and concepts of citizenship. Taken as a whole, it may seem as one enterprise; but the organizations constituting its parts represent important and varied interests in the community life. So it is that certain streams of social effort have been set up and run through the community, fed by the loyalties to fatherland, to race or to religion. In this connection, mention should be made of the Jewish Charities of Chicago and of the Associated Catholic Charities. These organizations represent, respectively, the efforts of the Jews and the Roman Catholics to minister to the welfare of their people in Chicago. The first is a federation of about twenty organizations; the latter includes about thirty institutions and agencies. These fifty sectarian agencies fit together with the other three hundred, some of which are sectarian but most of which are non-sectarian, to complete a community welfare structure.

¶ Statesmanship is found in planning for and maintaining the well-being of our city's people. The fullest accomplishment toward Chicago's well-being means harmonious cooperation between the separate parts of her social welfare machinery—the different agencies. This is the purpose of the Chicago Council of Social Agencies, constituted by the separate welfare agencies themselves as a medium for cooperation and joint planning. Success in this human welfare work requires the concern and cooperation of all a city has to offer. The task involves research into the social ills; it calls upon our universities for this, and is receiving their invaluable assistance. It requires the counsel and direction of business leaders in the administration of welfare machinery. Such leadership has been given, and has written the names of many Chicago men and families high upon the roll of civic honor. The task demands financial support which has reached a substantial sum in each generation and which doubtless will increase with future needs and further understanding.

The New Home of the Chicago Civic Opera Company

THE CHICAGO CIVIC OPERA AND ITS NEW HOME

By

HERBERT M. JOHNSON

Manager

¶ Grand opera is one of the outcomes of an urge for beauty, and is one of the most potent factors in maintaining and increasing the cultural level of a community. Practically every great city of the world has recognized this from the days when grand opera became one of the major branches of musical art. Milan, Rome, Paris, London and Berlin have had their opera companies, in some cases, for generations. Chicago's Civic Opera Company is one of the youngest, and at the same time is one of the most thriving operatic groups of the first rank in the world.

¶ Grand opera as an established institution had its beginning in Chicago in the fall of 1910, when the Chicago Grand Opera Company was organized by a group of Chicago and New York business men. Four seasons of opera, concluding in January of 1914, were given in Chicago. After an interim of a year, the enterprise was reorganized under the name of the Chicago Opera Association. The New York backers had withdrawn and the guarantors of the Chicago company all were Chicagoans. For many years the bulk of the deficit was borne by Mrs. Edith Rockefeller McCormick and Mr. Harold F. McCormick. At the conclusion of the 1921-22 season, Chicago's opera was reorganized on a basis which made a wider appeal to the community at large. The new organization became known as the Chicago Civic Opera Company. Public-spirited citizens of Chicago responded generously to the appeal for a guarantee fund; and before the season opened the company was guaranteed against loss, to the extent of $500,000 per annum for a period of five years.

¶ Probably for the first time in the history of opera anywhere in the world, a rigid budget system was followed and at the end of the season it was found necessary to call for considerably less than the total guarantee. At the end of the first five year guarantee period, Samuel Insull, president of the organization, announced the plans for a new permanent home for opera to be completed in time for the 1929-30 season. The project outlined by Mr. Insull has been realized. The "20 Wacker Drive" building will house the Chicago Civic Opera Company, and provide it in years to come with a revenue that should make it independent of guarantees. The building was financed by the sale of $10,000,000 of preferred stock and a first-mortgage loan of $10,000,000 from the Metropolitan Life Insurance Company. The common stock of the "20 Wacker Drive" Building Corporation has been trusteed in the names of the present board of directors under terms of a deed of trust which will direct the trustees in a general way what to do with the trust estate. Their first duty will be to liquidate the indebtedness of the trust, over a long period so as to give them opportunity to contribute from time to time toward the expense of giving grand opera in Chicago, and with the idea of eventually carrying the whole of the burden now carried by the guarantee.

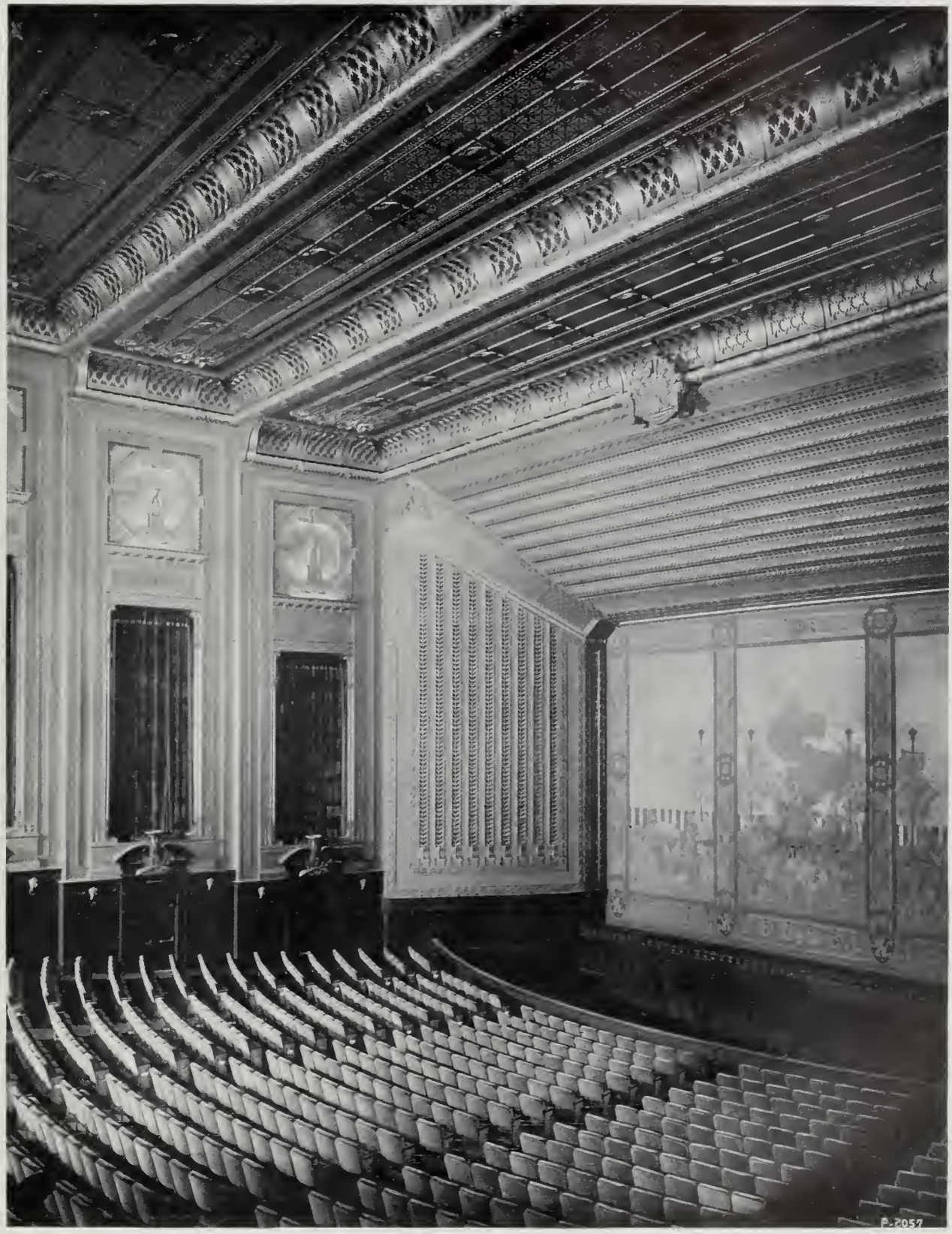
¶ On Monday evening, November 4, 1929, this magnificent new temple of music was dedicated. Verdi's "Aida" had been chosen for the opening opera. For the first time in the history of the art, a great opera company now is housed in its own income-producing building. The Civic Opera Company is

Making a Thatched Roof From Model

under great obligations to the various financial institutions that underwrote the preferred stock in the "20 Wacker Drive" Building Corporation, and to the public at large which absorbed the issue. It is under continued obligation to its guarantors who now number more than three thousand, and to the holders of season tickets, of whom there are many thousands. Through the cooperation of these pioneers in the support of music, Chicago now possesses a civic institution, with assets in the shape of scenery, properties and other equipment; a fine new theatre and office building destined at some future date to bear the entire cost of producing grand opera in Chicago; a singing company composed of leading artists from many parts of the world; a studio and warehouse where everything required for the production of grand opera can be constructed; and a business organization which rigidly limits expenditures, to income from sale of tickets and from the guarantee fund.

¶ The studio and warehouse, which made it possible for the company to construct all of its own scenery and properties on a most economical basis, came into being in 1924, to avoid the exceedingly heavy expenses of warehousing in various parts of the city and to concentrate the transportation and trucking activities in one building. With the storage space available in the new theatre added to that of the studio warehouse, the Chicago Civic Opera will be able to store practically all of its scenery, properties and equipment under its own roofs. The studio was financed by means of a bond issue, and the bonds are being retired rapidly. As soon as they have been fully paid, the studio will represent a net saving of $80,000 a year.

¶ The constructive work of the opera company never ceases. Every working day in the year the warehouse is in operation, for the building of properties, scenery, armor, wigs, costumes and electrical apparatus; for repairing, laundering and all the far-reaching mechanical work that is the essential foundation for the magnificent illusions of grand opera. Each department is distinct.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¶ The second floor is devoted to the making of costumes and wigs, and to storing of costumes and the great supply of trunks that carry costumes on tour. The huge stock room contains everything from a carpet tack to great rolls of Russian canvas. The laundry is equipped with all modern machinery, and a vast roof on which hundreds of frames are filled with the company's linen during the summer months. The wardrobe department works throughout the year, making new costumes and repairing old.

¶ The scenery department is one of the most interesting in this vast hive of industry. There are the studio, where designs and sketches of the settings are made; the model room, with more than a hundred models, each of which is one foot high, showing the opera stage in miniature with the scenery and lighting just as on the stage; the drafting room, where models and sketches are blue-printed so that scenery may be accurately painted on a scale of one foot to each quarter-inch on the models. There are three huge floors, seventy feet by fifty feet, on which the canvas is laid flat and painted; then there are three upright frames, seventy feet by forty-five feet, which move up and down by electricity, so painters can stand on the floor and paint without having to climb on scaffolds. Even the garage, for housing the great trucks with which the scenery is carried to and from the opera house, is located in this studio warehouse.

¶ Every year the Chicago Civic Opera makes a post-season tour which is one of the most important enterprises in advertising the cultural side of Chicago. In the last seven years the company has visited forty-two cities and given 390 performances. During that period, literally millions of pieces of advertising literature have been distributed, and the press clippings collected might be measured by the rod.

¶ With the year 1929, the Chicago Civic Opera enters a new and vastly important field—that of training future material for the operatic stage. Six European scholarships have been endowed by members of the board of trustees, and will be available to Chicago artists ready for their post-graduate work and debuts on the operatic stage. The first annual scholarship contests were scheduled for September and October of this year.

¶ On September 30, 1929, the Chicago Civic Opera opened its ballet school, under the direction of Laurent Novikoff. This school is destined to play an important role in the training of dancers. While it is intended primarily to provide new blood for the Civic Opera Ballet, its courses will include also plastic and dramatic dancing and playground work; and it is the hope of the management that the school will become an important art force in the community. For future years, both a chorus school and an orchestra school are envisioned.

¶ Opera in Chicago is at last on a secure basis. The credit for the achievement belongs entirely to the broad-minded civic leaders whose wise foresight and generous donations made the institution possible.

THE CHICAGO SYMPHONY ORCHESTRA

By

FREDERICK STOCK

Conductor

¶ In reviewing the history of the Chicago Symphony Orchestra one must go back farther than the first concerts actually given by Theodore Thomas in the Auditorium. Attempts to inaugurate concerts were made long before that time and it would be necessary to go back to the year 1850 to trace the first steps in the direction of orchestral music.

¶ The beginning is significant, even though attended by quick failure, for the first efforts had been made to bring a new culture into this fast-growing metropolis. The most vital early attempt in this direction was made by Hans Balatka, under whose direction the Philharmonic Society had its beginning. With the enthusiastic support of a few far-sighted citizens, who felt convinced that culture need no longer be confined to the East, this organization continued for a number of years, giving concerts and blazing the trail for Theodore Thomas, who was to follow in a few years. However, the time was not yet at hand where the spirit of the enterprising West was prepared to throw itself whole-heartedly into the support of musical organizations; and so the Philharmonic Society, meeting with growing obstacles, had to disband.

¶ An event of early importance was the visit to Chicago, in 1869, of the Theodore Thomas grand concert organization. Thomas had become convinced that his orchestra was well enough known throughout the country to insure the success of a tour. After putting it on a secure basis he had taken the whole organization on a tour as far west as Chicago. During that visit Thomas made many friends here and a return tour was arranged. The following year seven concerts were given, the programs consisting of many works that were new to Chicago. The year 1877 saw another big step in the musical life of Chicago. This was the organization of summer night concerts in the Exposition Building, the success of this venture culminating in 1890 in the birth of the orchestral association.

¶ During the thirteen years of these concerts in Chicago, Thomas received constant assurance of the loyalty and appreciation of his audiences; and it was due to this fact that, when the prospects for his orchestra seemed hopeless in the East, he decided on Chicago as the center where he might best carry on his pioneering in the field of music. Thomas had become assured that the constant traveling necessary to the financial success of his organization, and the consequent overwork to himself and the members of his orchestra, would prove ruinous. After the failure of New York to provide him with a hall in which to continue his concerts and with not an endowment which would have been necessary for their maintenance, Thomas accepted the invitation of some enterprising and courageous citizens of Chicago to bring his players west. He brought sixty members of his New York orchestra, which he augmented when he arrived in Chicago. The association which at that time assumed the financial responsibilities of the orchestra in Chicago has ever since then operated on a continuous basis.

¶ In the autumn of 1891 the Chicago Orchestra gave its first concert in the Auditorium,

Theodore Thomas conducting. The first season consisted of twenty Friday afternoon public rehearsals and twenty Saturday evening concerts, with later on several weeks of opera and concerts on tour.

¶ The early days of the Orchestra were filled with difficulties. Culturally and musically Chicago had not made very great strides. It was still largely a city of factory workers, earnest and hard-working people to whose zeal Chicago owes so much today—but too vitally interested in the city's material growth to give much thought to its artistic development. This fact made it very difficult not only for Thomas to find members for his orchestra and keep contented those he already had; but it made the moulding of an audience also a great task.

¶ Furthermore, the need of a permanent home for the Orchestra became constantly more evident. The Auditorium proved entirely too large. Due to its great size, the audiences never felt the necessity of becoming subscription holders, a factor obviously important in the early life of an organization. The size of the audience was therefore dependent upon the vicissitudes of weather or upon any distracting amusements that came to town.

¶ The building of Orchestra Hall and the raising of the necessary funds will always stand as a triumph in the musical history and growth of Chicago. No greater tribute could have been paid the man who was responsible for the creating of musical life in Chicago, no firmer assurance given the future of his enterprise, than the response of the public to his plea for a home for the Orchestra. Rich and poor alike contributed, there being 7,500 subscribers to the fund of $800,000, the gifts ranging from ten cents to $25,000. The goal of which Thomas long had dreamed had finally been reached; and he felt that with the dedication of Orchestra Hall in 1904, the future of his Orchestra was secure.

¶ Destined to see his life work completed, the hopes of the earliest days of his career fulfilled, Thomas died a few weeks later. The name of Theodore Thomas always will be linked with the history of music in our country as that of its greatest pioneer. Without him and without his firm belief in the American people as a cultural and music-loving nation, the cause of great music in America would have been retarded for many years.

¶ The history of the Orchestra since the days of its founder is perhaps largely one of statistics, but there are many factors in its growth and development which are of interest. The importance of an organization such as this, and its effect on the musical life of the community, can hardly be over-estimated. Its influence reaches not alone the vast numbers of persons of all classes for whom it gives concerts, the programs for which are especially arranged to suit their taste and appreciation; but it affects the life of the musical schools and colleges. It goes into the private and public schools, as is seen by the cooperation they have given the Orchestra in its efforts to develop the children's concerts. There is no phase in the musical life of Chicago which is not affected by the importance of its Symphony Orchestra. Perhaps the most interesting phase, in the development of general taste in music, has been the raising of the standard of the programs. At the beginning of the century the programs were of a very different calibre, than those of the present, consisting at first of very light and so-called "popular" music. Often they contained only detached movements of symphonies and excerpts of larger works. But the standard of the public's demand for good programs has steadily risen, until now, for the three series of concerts, given annually by the Orchestra only works of the most important calibre are played.

¶ An increasing demand for concerts in its home has been met with an ever-growing number of concerts. With traveling and out-of-town appearances reduced to a minimum, except in the immediate vicinity of its home, the Chicago Symphony Orchestra now averages one hundred and thirty concerts in its regular season of twenty-eight weeks. This development has witnessed the inauguration of a series of children's concerts. The popularity of these is indicative of the importance of the Orchestra as a cultural asset to the community. The programs consist of forty-five minutes of music, of light but pretentious character, and fifteen minutes of explanatory talks as well as slide pictures. The children are asked to participate, in the singing of songs and the response to questions; and their cooperation is wholehearted. The latest step in this direction has been an agreement by the Orchestral Association with the Superintendent of Schools to further the study of music in the public schools of Chicago. This provides for a four year course of study to include history of music, rhythm and form. During the course of these studies, illustrative programs, keeping pace with the progress of the students, are to be played by the Orchestra. These are to be known as Young People's Concerts.

¶ Another interesting feature in connection with the Chicago Symphony Orchestra is the Civic Orchestra. Organized in 1919, this Orchestra is governed by the Orchestral Association and the Civic Music Association. Its purpose is the training of symphony orchestra players. Besides the opportunity it offers young people with talent to receive the valuable training of orchestral playing and ensemble, the Civic Orchestra also gives composers a chance to hear their works at rehearsal, an experience of great value to many of our gifted creative artists. The Civic Orchestra has supplied leading orchestras throughout the country with players, thirty-five of its members having been taken into large orchestras.

¶ The Chicago Symphony Orchestra rests on a solid and substantial foundation. The fact that its history is one of constant development is largely due to the loyalty, appreciation and encouragement of Chicago's music-loving public. This is the mainstay of its support, as well as the safest assurance of its permanency.

RAVINIA OPERA IS FAMOUS IN THE REALM OF MUSIC-DRAMA

By

LOUIS ECKSTEIN

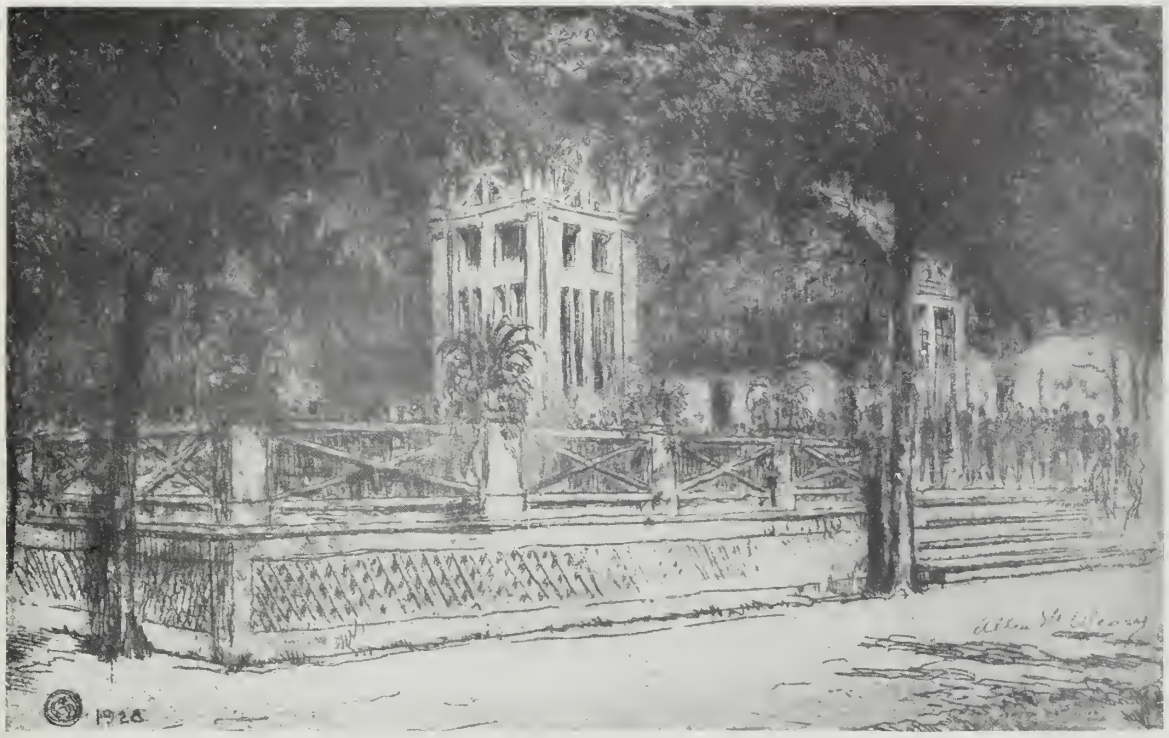
President and General Manager
The Ravinia Company

¶ When one has devoted almost two decades to fostering an artistic institution which has grown within that time from extremely modest dimensions to a position of world importance, it is somewhat of a task to write about it dispassionately and objectively. Within recent years our splendid Art Institute, our Symphony Orchestra, our educational institutions, our museums and our two grand-opera organizations have attracted favorable attention the world over. That Ravinia Opera should be numbered among these is to me a matter of pride. Frequently during the years that Ravinia has been in the making I have cast about in the attempt to find the *raison d'etre* of it all, to determine in my own mind why this artistic institution which entails so much of work, worry and financial sacrifice, should lead me on and on, ever inspiring me to more herculean undertakings in its behalf. But I never have been able to view it in this objective fashion, for to me it is entirely too subjective. So it remained for an editorial writer of a Chicago daily newspaper to express, as I could not express myself, the sentiment which has motivated Ravinia Opera from its beginning.

¶ "Ravinia," he wrote, "is the outgrowth of idealism pure and simple; a lofty idealism that visions something above the ordinary and believes that a man, to do his best and live his best, must be fed with that which is æsthetic and spiritual as well as that which is substantially material."

¶ I set this down as it was written, and at the same time make due allowance for the kindly and generous interest of the writer. Reduced to less rhetorical terms, this means that Ravinia has come into being as a result of my belief that art, and particularly the art of music, is a leaven we all need to make life more worth while. I have held to this opinion since boyhood, and through my youthful years I applied its principle to myself. Through Ravinia I have endeavored to foster an understanding and appreciation of music and to make a definite and tangible contribution to the musical life of this nation.

¶ There is no reason that I can perceive why the American people should have less regard for music than do the people of Europe. All of us on this side of the Atlantic come from European stock; and many trace their ancestry to those countries of the old world wherein musical history has been made throughout the centuries. If there is anything in heredity, if natural taste and talent are handed down from one generation to another, then America should have a musical heritage equal to that of Germany, Italy or France. We have been side-tracked—that is all: side-tracked in part by certain early religious prejudices which placed a ban on music; by the necessities which arose as a new nation was builded in the wilderness; by the struggle for advancement in agriculture, in industry and in commerce. From this we may gather that the appreciation of good music is largely the result of environment and opportunity. The people of Europe for generations have known good music. It enters deeply into the lives of the people. Given the same opportunities, the American people are destined in time to become leaders in this, which I esteem to be the greatest of all the arts. It is to aid in hastening this destiny that Ravinia exists today. It is for this that I have put my shoulder to the wheel and have thrown my time, my energy and my resources into this work.



¶ There was a time when Ravinia was called a daring experiment because this opera house is more than twenty miles from the urban section generally associated with institutions of this kind. Ravinia *was* an experiment, and perhaps it was even a daring experiment; but that time is past.

¶ Ravinia Opera has finished its eighteenth season, and never was interest in it more avid. Year by year it has grown, its repertoire has been extended and more famous artists have been added to its roster. The names of the singer-actors who appear at Ravinia each year are known wherever grand opera flourishes. For eighteen years the Chicago Symphony Orchestra has formed an important part of the Ravinia organization, furnishing the musical settings for the operas and playing the concert programs. As a part of our educational program, this world-famous orchestra has for many summers given a weekly concert for children. I have maintained that we must look to the future, and that we must inculcate in the children of today a love of music that will impel them to become its patrons tomorrow.

¶ Modern train service and the automobile have made Ravinia easily accessible. Its regular patrons come from within a radius of a hundred miles, and during the summer it is visited by persons living in every part of the United States. Functioning as it does during the months when musical activity elsewhere is generally at a standstill, the opera house in the woods has become a place of pilgrimage. Its sylvan surroundings are ideal for those who long to get away from the hustle and bustle of the city and to seek rest for mind and body where all is calm and tranquil. It is such an atmosphere that prevails at Ravinia. It is indeed gratifying to watch the crowds as they pour through the gates. From far and near they come—men, women, children—representative of all walks of life and of every social status. There is no place where a more cosmopolitan gathering is to be found.

¶ No pains are spared when it comes to keeping our artistic standards at the highest level. The repertoire is drawn from the masterpieces of the world's operatic literature. The artists are chosen because of the genius with which they are endowed. It is by fostering such an art here in this great Mid-Western section, that we are attempting to make a tangible and lasting contribution to the cause of musical appreciation in America. This, and this alone, is the purpose of Ravinia.

THE HIGHER EDUCATIONAL FACILITIES OFFERED IN CHICAGO

By

WALTER DILL SCOTT

President
Northwestern University

¶ Preeminence of a city does not depend primarily upon its size or its wealth. Samarkand of ancient Persia may have been a large city. It certainly possessed much wealth and was regarded as a powerful community—so much so that Alexander the Great selected for a wife Roxana of Samarkand. Our first account of the city states that it was "a great commercial center, the country about it very fertile, abounding in trees and flowers and yielding many fine horses." We know but little of the inhabitants of that community; but we are told that Timur the Lame, who became the great Khan in 1369, lived there and dominated its activities. Pyramids of human skulls were his particular architectural fancy. On one occasion he made such a pyramid with 70,000 fresh skulls of individuals whom he had put to death. Samarkand may have been large; it may have been rich; its pyramids of human skulls may have been the largest ever formed by man: but we have not heard of any contribution made by Samarkand to the welfare of mankind.

¶ Athens may be thought of as a city of antiquity most unlike Samarkand. Athens was never large, and it was never a wealthy city; but it is regarded by all men as the greatest of all the cities of antiquity. It was the seat of all forms of higher learning, and often is called the mother of all the arts and the sciences. There is not a man in the civilized world today whose life is not richer and better because of the contribution made by Athens to the progress of civilization.

¶ Is Chicago a Samarkand or is it an Athens? Is it creating pyramids of human skulls, or is it fostering culture and learning? Is its preeminence confined to material things, or is it becoming a center of culture and of higher learning?

¶ The most reliable source of information concerning the relative importance of different educational centers in America is contained in the 1926 report of the Commissioner of Education presenting the data for the year 1925-1926. According to this report, Chicago (Evanston, Oak Park, Maywood) has nine colleges or universities, nine theological schools, seven law schools, five medical schools, five schools of commerce and three dental schools. This totals thirty-eight institutions of higher learning of the types mentioned. The next competitor is New York City (Greater New York) with thirty-six institutions of these types; the third is Philadelphia (Bryn Mawr, Haverford, Swarthmore, Villanova, Rosemont) with thirty; the fourth is Boston (Cambridge) with twenty-six. It is of course true that the mere number of institutions is not conclusive as to educational eminence. One high-grade institution is of more value to a city than a score of inferior institutions. However, there is every reason to judge that the thirty-eight institutions of Chicago are individually quite the equal of the thirty-six of New York, the thirty of Philadelphia or the twenty-six of Boston. Adequate information is not at hand as to the number of students attending the more inferior of these institutions

in the various cities. In some instances it is difficult or impossible to compare the institutions of one city with those of another and to state definitely which institutions are the more worthy. However, sufficient facts are at hand to enable the impartial reader to appreciate the importance of Chicago as a center of higher learning in America.

¶ The American Medical Association has classified all the medical schools of America into three groups—the A Class, the B Class and the C Class schools. According to this authoritative classification, Philadelphia has five A Class medical schools; Chicago and New York each has four; Boston has three: but Chicago has more students attending A Class medical schools than has any other city.

¶ The Dental Educational Council of America has classified all the dental schools of America into the A Class, the B Class and the C Class schools. All three of the dental schools in Chicago, two in New York, two in Boston, and one in Philadelphia, are classed as of A grade.

¶ The Association of American Law Schools has established certain standards that must be attained by all law schools admitted to entrance. Of the 150 or more law schools in the United States, sixty-two have qualified for admission. Of these sixty-two, four are in Chicago, two in Boston, one in Philadelphia and one in New York City. The requirements in that New York Law School are three years of college study for entrance and three years' resident study for graduation. The standard requirements for one of the law schools in Chicago are three years of college study for entrance and four years' resident study for graduation. This is the highest requirement of any school in the United States for students who have completed three years of college

¶ The American Association of Collegiate Schools of Business has established certain standards that must be met by all schools offering professional training for business which gain admission to the Association. There are thirty-eight schools of business, of university grade, which have qualified for admission. Of these thirty-eight, two are in New York, two in Chicago, two in Boston and one in Philadelphia. No other city possesses more than one such institution. The largest school of commerce in America offering full-time day instruction leading to a four years' undergraduate degree, full-time graduate work leading to a graduate degree, as well as full-time and evening courses in business and commerce, is located at Chicago.

¶ There is no accepted standard for classifying the universities and colleges of America. Various attempts have been made to make a list of the most superior of all our universities. The only list that might be thought of as in any sense authoritative is the membership list of the Association of American Universities. This list contains the names of twenty-six universities. Two of those twenty-six are located in Chicago. No other American city can boast of more than one university meeting the standards of this association. The students attending the departments of Arts and Science in these universities of higher rank are more numerous in Chicago than in any of the other cities mentioned.

¶ No attempt seems to have been made to classify, officially, the theological seminaries of America. It would be very difficult to decide whether the seminaries of one denomination are superior to the seminaries of the other denominations. However, within a denomination there is frequently a general consensus of opinion as to which is the very best of the seminaries, or at least which are the best few. Consensus of opinion within the denominations would thus place more of the superior seminaries in Chicago than in any other city. This position of superiority is held by the denominational theological seminaries maintained in Chicago by the Methodist Church, the Baptist Church, the Presbyterian Church, the Congregational Church and the Roman Catholic Church (Mundelein).

¶ The institutions in America giving instruction in the fine arts have not been classified, and there is no available standard at the present time for making such a classification. On one point, however, there is definite information;

McKinlock Campus—Northwestern University

and that is that there are more students attending the Art Institute of Chicago than any other art institution in the world. Since the Art Institute offers no training in music, it would appear that Chicago might fail to occupy a high place in music, one of the most important phases of art. However, such is not the case, since one of Chicago's schools of music is the largest university-school of music in America; and it offers the most thorough and comprehensive course in instruction in music, both practical and theoretical, to be found in America.

¶ For many decades New York has been the publication center of America; but her preeminence is being threatened. For several years Chicago has been recognized as the center for such publications as trade journals and agricultural journals, and she is now becoming the center also for the most superior journals devoted to higher learning.

¶ The Chicago Public Library system, with a central library and forty-two branches, circulates more books than any other single municipal library system in the world. In addition to that library, there are several great libraries: the John Crerar Library, one of the great libraries of America on science and technology; the Newberry Library, devoted to the humanities; the libraries of Northwestern and Chicago universities; the Ryerson Fine Arts Library, and the Burnham Library of Architecture in the Art Institute. In number of volumes contained in all the principal libraries (those having 100,000 volumes or more), Chicago stands third among cities of North America, with 4,295,000. It is exceeded by New York with 7,000,000 and by Washington with 6,872,000 volumes.

¶ With justice we may speak of Chicago as preeminently an educational city and a center of higher learning. Because of the very great expense involved in education, no city can retain its position as an educational center if it fails to win the substantial support of its citizens. The institutions of higher learning in Chicago have shown themselves worthy of such support.

SUNDAY EVENING CLUB

By

CLIFFORD W. BARNES

President

¶ The Chicago Sunday Evening Club was founded in 1907 by a group of influential business men under the leadership of Clifford W. Barnes, with the idea of establishing a central place of common worship for persons of all denominations and especially for the benefit of strangers in the city. The underlying object of the Club is religious, the purpose of the organization being "to maintain a service of Christian inspiration and fellowship in the business center and to promote the moral and religious welfare of the city." At the first meeting in Orchestra Hall, only eight hundred persons were present; but now it is not unusual for the seating capacity of 3,000 to be taxed at one of these gatherings.

¶ The Club has grown with the city. Its success as a nonsectarian religious movement has been due in large part to the strong backing and efficient management provided by its Board of Trustees. John G. Shedd, A. C. Bartlett, Frank H. Armstrong and Charles L. Hutchinson were among those who launched the movement. At the present time the board includes Harry A. Wheeler, James Simpson, John W. O'Leary, David R. Forgan, George M. Reynolds, Elmer T. Stevens, Rush C. Butler and other purposeful men of their type.

¶ Since the advent of radio communication, the Club has become more than a local institution. It sometimes has been called the "Sunday evening service of the nation." During the past three seasons hundreds of thousands of listeners in all parts of the country have enjoyed the services, and the Club has received letters from many of them. Several of those communications were from parents in rural districts, whose children have come to the city, and stated that together they enjoy the Sunday Evening Club services—the young people by going to the meetings in Orchestra Hall and the parents by "listening-in" at home. Many pastors of far-distant churches use the Club "broadcast" for their evening services, and have built up larger attendance in that way. Those receiving the greatest benefit perhaps are the invalids, "shut-ins," hospital patients, deaf and aged persons who get the services over the radio.

¶ No story of the Club is complete without mention of the roster of brilliant speakers who have appeared on its platform. Among the famous men to address the Club were former Secretary of State Charles E. Hughes and William Howard Taft, then President. William Jennings Bryan was another. Marshal Joffre, Baron d'Estournelles de Constant and Henry Wickham Steed all spoke, on special occasions. The majority of the Club speakers are the leading churchmen of the various denominations. Hardly a famous American preacher of the past twenty years but has been on the Club's list, which has included Harry Emerson Fosdick, Robert E. Speer, Hugh Black, Henry van Dyke, Bishop Charles P. Anderson, Bishop William F. McDowell, Bishop Edwin E. Hughes, Robert Freeman, Rabbi Stephen S. Wise, the late Lyman Abbott and Henry Howard. Among church dignitaries who came from abroad were the Lord Bishop of London, the Lord Bishop of Scotland, the Archbishop of York and the Rev. Geoffrey A. Studdert-Kennedy, rector of St. Edmund parish in London.

¶ Through its thorough methods of advertising, the Club has become known to traveling men in all parts of the country, and they form a significant part of every attendance. The hotel guest finds one of the invitation cards in his mail box, or at the information desk, or sees one of the many posters which are distributed throughout the loop district. The members of the Board of Trustees hope to see the Chicago Sunday Evening Club secured by an endowment fund which will insure its perpetuity for the benefit of future generations of Chicagoans.

Saint Gaudens' Statue of Lincoln in Grant Park

FUJITA

THE UNIVERSITY OF CHICAGO AN INSTITUTION OF WORLDWIDE REPUTE

By

ROBERT MAYNARD HUTCHINS

President

¶ It was inevitable that the city of Chicago should have its university, and it was significant that this university was organized at a time when the city had just become conscious of its position as a metropolis. When the new University of Chicago opened its doors on October 1, 1892, the city of Chicago was already launched on the program of development that has produced the Chicago of today. A year later the World's Columbian Exposition was to announce to the world the power of the city and to mark the end of Chicago's pioneer period. In the thirty-seven years that have passed, there has been a parallel growth of the city and the university, not only in size, but also in influence and prestige.

¶ The University of Chicago came into existence through the combination of the philanthropy of John D. Rockefeller with the genius of William Rainey Harper, its first president. Dr. Harper's hopes for the University are best stated in his own words: "If the proposal were simply to go to Chicago and organize another University just like the others already in existence, I would not think of it for a moment. It is the opportunity to do something new and different that appeals to me." The University that Dr. Harper established did have ideas new to education. He introduced the four-quarter system, which extends the operation of the University throughout the year. He founded the first University Press in America for the dissemination of the knowledge that the University was to produce. Last year this University of Chicago Press published eighty-nine books. In addition, fourteen learned journals, in as many special fields, such as *The Astrophysical Journal*, *The Botanical Gazette*, *Modern Philology*, *The American Journal of Sociology*, are published regularly, nine of them as quarterlies, and the others at more frequent periods. That the resources of the University should be open to the widest and most democratic use, Dr. Harper established the first university-type extension department. This department now carries 7,000 students currently on its lists. He also made available for evening work a University College, which, in the downtown district, now has annually in attendance some 2,000 men and women who are unable to take classes on the Quadrangles. He instituted a program of public lectures and the use that the University now makes of the radio is the extension of the Harper effort to employ every possible means to make the University of value to everyone.

¶ The realization of Dr. Harper's plans and hopes for a great university in Chicago was accomplished through the active interest and support of citizens who had made Chicago a great city. The founder, John D. Rockefeller, stipulated that his initial gift of six hundred thousand dollars must be matched by the sum of four hundred thousand dollars from the people of Chicago. Dr. Harper, with his ability to arouse in others the enthusiasm he himself had for the project of a University of Chicago, obtained the sum required and then proceeded to extend his plans. Even before the University opened on that October day of "World's Fair" times, it had a site of twenty-

Medical Building

four acres, and provision for ten buildings. Mr. Rockefeller's initial gift of $600,000 had been increased by pledges of an additional two millions, and a spontaneous demonstration of support by the citizens of Chicago had pledged another million dollars in a period of ninety days. Mr. Rockefeller's gifts ultimately amounted to $35,000,000, but this sum, vast as it is, is exceeded by the contributions of others, the largest source of support being that of the people of Chicago. Today, the assets of the University are approximately $87,000,000 of which $48,000,000 is endowment.

¶ In the letter accompanying the announcement of his final gift of ten million dollars in 1910, Mr. Rockefeller wrote: "Most heartily do I recognize, and rejoice in, the generous response of the citizens of Chicago and the West." And, "I am acting on an early and permanent conviction that this great institution, being the property of the people, should be controlled, conducted and supported by the people, in whose generous efforts for its upbuilding I have been permitted to cooperate." That this faith was not misplaced has been demonstrated by the long list of those citizens of Chicago and the Middle West whose gifts and whose service on the Board of Trustees, have enabled it to achieve its present rank.

¶ If we follow the growth of the University we find that the faculty in 1892 numbered 120; there were 594 students. Today the faculty is close to 800, and the student body for the year is 14,500. There are some seventy buildings on the Midway Quadrangles; others are in such distant places as Luxor and Armageddon. For the last five years, the buildings completed or under way have a total valuation of $23,500,000. The University now has some 185 acres of land, including a tract of 75 acres used by the Yerkes Observatory at Lake Geneva, Wis.

¶ But it is not size that interests the University of Chicago. The record of the University's faculty in teaching and in adding to the sum of human knowledge is its principal achievement. To his original faculty, the appeal of President Harper's new kind of University and his persuasive enthusiasm brought many of the leaders of the educational world. Included were nine college and university presidents who served as professors because they had faith in the program of the University. The University of Chicago can claim such names as those of Albert A. Michelson, foremost

TROWBRIDGE

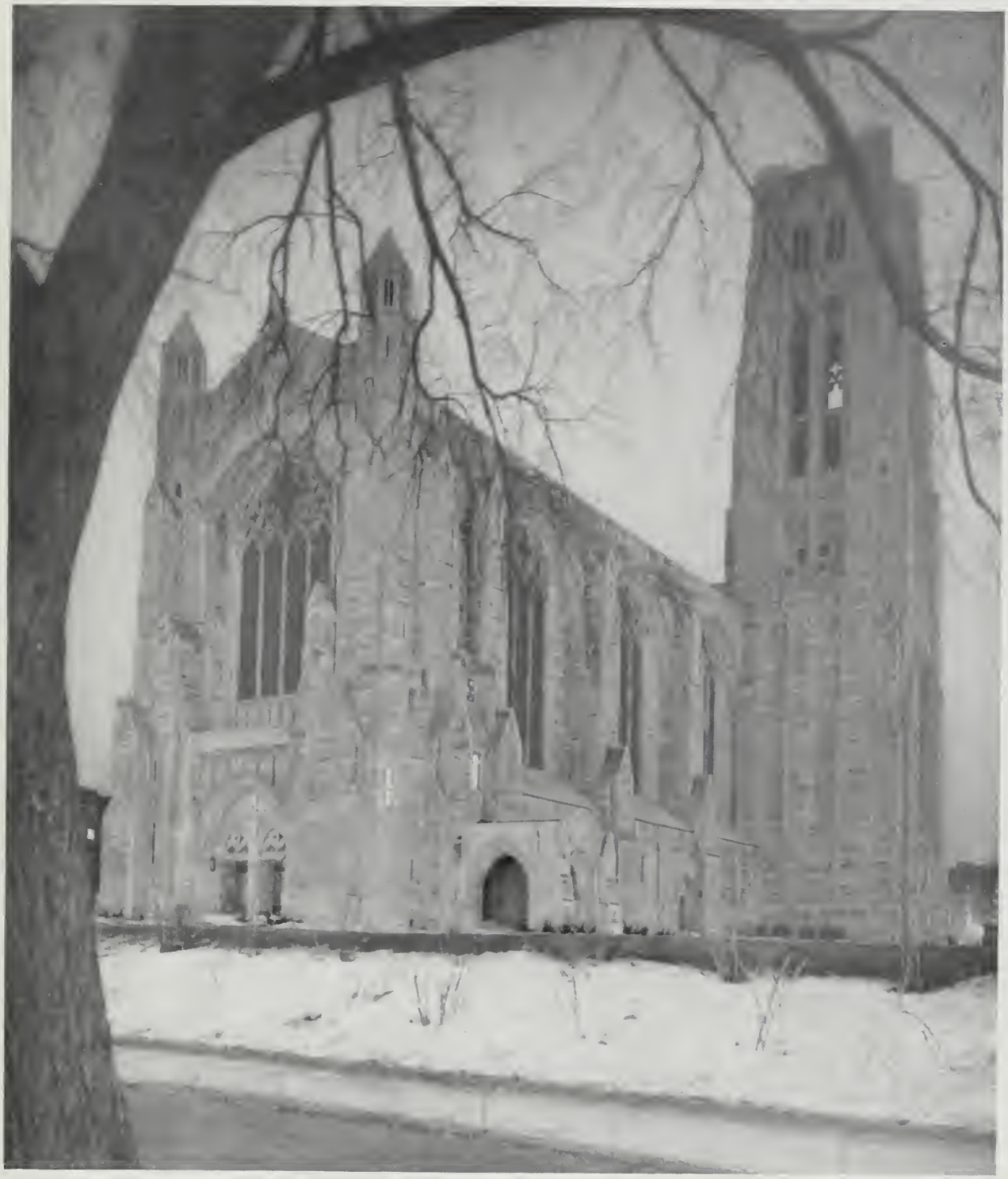
investigator in the field of optics, on whose ether drift experiment, but one of many magnificent investigations, the Einstein theory of relativity is based; of Thomas C. Chamberlin and Forrest R. Moulton, whose planetesimal hypothesis of the origin of the world has been widely accepted by scientists; of James Henry Breasted, who has made many additions to the world's knowledge of ancient civilizations; of Albion W. Small, founder of the modern study of sociology; of Floyd R. Mechem, the legal scholar; of Howard Taylor Ricketts, who gave his life to discover the germ of typhus fever; of Anton Carlson, the physiologist; of Arno Luckhardt, the discoverer of the anesthetic ethylene; of Jacques Loeb, the physiological chemist who added so much to our understanding of life processes; of Charles H. Judd, who revolutionized the teaching of educational methods; of Robert A. Millikan and Arthur H. Compton, Nobel prize winners in physics; of John Manly, the student of Chaucer; of Eliakim H. Moore, Gilbert A. Bliss and Leonard A. Dickson, in mathematics; of Edgar J. Goodspeed, Shirley Jackson Case, and J. M. P. Smith, in Biblical literature. Even that varied list gives only a few of those who have made the reputation of the University for scholarship, or whose distinction in teaching is widely recognized.

¶ Four of the five Nobel prizes awarded to Americans have gone to men who have carried on their investigations at the University of Chicago, and of the four, three are the only American winners of the prize in physics. They are A. A. Michelson, Robert A. Millikan, and Arthur H. Compton, while Alexis Carrel, who won the prize in medicine, was formerly on the Chicago faculty. A few years ago another indication of the ability of the faculty was furnished by what is known as the Hughes report, a study of the leading graduate schools of the country. Chicago led in the Departments of Mathematics, Physics, Botany, Geology, Geography, Sociology, French, and Spanish, and if the ranking for all departments were figured on a point basis, Chicago stood first in the country. Recently the American Association of Colleges conducted a study among several hundred colleges and universities to determine where they obtained their outstanding teachers. The University led in the fields of History, English, the Social Sciences, Ancient Languages, Modern Languages, Mathematics, and Science.

¶ The record the University of Chicago has made in productive scholarship, in adding to the world's store of knowledge during the past thirty-seven years, has won international recognition. But side by side with its Graduate Schools exists an undergraduate college. The stimulation that comes from the close association of teaching and research has offered the University an unusual opportunity in its college work; moreover, there is the challenge that the one shall keep pace with the other. Great size in the undergraduate colleges does not interest the University.

¶ The freshman class is limited to students whose personal and scholastic records indicate that they are fitted to take advantage of the opportunities that the University offers. The University has constantly sought to improve the grade of teaching. It has led in developments such as survey courses, and its faculty is engaged in continued consideration of methods of improving its work. The University recently inaugurated a comprehensive health service and is starting to build a three million dollar group of residence halls which will provide for its undergraduates the advantages of life in a compact university community with all its inspiring associations.

¶ It is literally true that the world is the laboratory of the University. Its Oriental Institute has five expeditions in the field recovering the records of lost civilization and cultures. University of Chicago research workers are to be found in the Public Record Office in London; in the clinics in Vienna; in the mountains of South Africa—wherever, in fact, there is a challenge to man's enlightened curiosity. Though the research activities of its scholars have never been limited to projects of immediate utilitarian value, much of the work of the University has been of practical



University Chapel

NON-SECTARIAN, NON-COMPULSORY

importance in medicine, in science, or in the social sciences. It has made many contributions to the city of which it is a part, and its assistance is frequently sought in solving the problems of our complex civilization. One of the most interesting of its projects is the Local Community Research Committee, which has completed more than one hundred vital statistical studies and analyses of Chicago's social problems during the past six years. Specific studies have been made recently on such questions as housing, the overlapping of governmental agencies, urban health, organized crime, juvenile delinquency, the effectiveness of the parole system, and non-voting. Within the last few months there have been important developments, among them the appointment of Chief of Police August Vollmer of Berkeley, California, as Professor of Police Administration to organize a University study for increasing the effectiveness of police methods; the affiliation of the International City Managers' Association with the University; and the affiliation with the Bureau of Public Personnel Research. In these and other ways the University of Chicago is moving to make available to the city and the nation its personnel and its resources.

¶ Another specific effort of promise is represented in the University Clinics, which are conducting a new attack on disease. Rush Medical College of the University on the West Side has long had an unexcelled record in medical training and in research; the Clinics represent still another form of unified effort in medical research, with all the assistance to be derived from the integration of exceptionally able departments of the University in the basic sciences. A center for the study of children's diseases is already under way. The medical project has received numerous gifts from Chicagoans for the support of research that already has made encouraging progress.

¶ The many phases of the University's effort, of its plans, and its achievements, can only be sketched within the limits of this article. Since the record as it is outlined here was made by a host of unselfish and devoted men and women with whom I have been associated for only a brief period, I feel free to speak openly of their achievements. One quickly realizes that the extraordinary progress of the University of Chicago during its short existence has been in large part the result of the enlightened support of the people of Chicago. As Chicago and its University go forward together we may anticipate a development in which both City and University will surpass the accomplishments which, in the past forty years, have made them great.

The "Old Man" (Coach Stagg) Explains How Games Are Won—or Lost

KAUFMAN AND FABRY

Chicago Public Library and Pittsfield Building

FUERMANN

McKinlock Campus

NORTHWESTERN UNIVERSITY AS A METROPOLITAN INSTITUTION

By

WALTER DILL SCOTT

President

¶ A metropolitan university is not a cloistered institution that spends its time in activities of no practical concern. It takes itself seriously and attempts to contribute to the welfare of the community. All subjects taught and all problems investigated are believed in some way to reduce human suffering and to increase human joy.

¶ Most of the world's sufferings are the result of four causes—poverty, disease, wickedness and ignorance; while the world's joys are largely the result of prosperity, health, right doing and wisdom. During the course of centuries, civilization has developed agencies for removing the causes of suffering and for increasing the causes of joy. The almshouse may symbolize those agencies that reduce poverty and increase prosperity; the hospital is a symbol for those that reduce disease and promote health; the church stands for those that reduce wickedness and increase right doing, and the schoolhouse for those that reduce ignorance and increase wisdom. These agencies accomplish results so essential to human welfare that they enlist the consideration of every rightminded individual.

¶ The metropolitan university is not a luxury that serves the selfish interest of a few. It is a necessity that in itself justifies the combined symbolism of the almshouse, the hospital, the church and the schoolhouse. I will sketch briefly the extent to which Northwestern University performs these four essential functions in this community.

¶ Historically, the giving of alms has been the approved method for alleviating poverty, if not for removing it. The modern conception is that the giving of alms may pauperize, and that the surest way to eliminate poverty is by the development of self-supporting and self-respecting individuals. All courses of instruction at Northwestern University should, and I believe they do, have vocational value as well as cultural. Our students are trained to become self-supporting men and women who by their teaching inculcate industriousness and thrift.

¶ Our present industrial civilization with all its resultant wealth is largely the product of discoveries and inventions made in university laboratories, under university auspices, or by university-trained individuals. Northwestern is contributing continuously to this advance of science which is rapidly reducing poverty and increasing our community wealth. The university has come to occupy a leading place in the training of young men and women for effective service in the business world. It was not an accident that Mr. F. C. Austin chose this institution as the best one in America to administer his millions to be devoted to the training of future business executives.

¶ Our students are required to take courses in physical education and to engage in some invigorating form of physical exercise. Healthful living conditions are insisted upon, so far as possible, and we attempt so to supervise the students that all will graduate in good health. In our medical clinics on the McKinlock Campus, about 88,000 poor persons per annum are given medical attention.

¶ In our dental clinic some 84,000 dental

Northwestern's Sorority Houses Are Attractive

operations are performed annually to relieve the suffering and to increase the health of the poor. What we do for the health of our students and the medical aid we give to the large number of poor that come to our clinics is insignificant in comparison with the work that we do by training physicians, dentists and nurses, and by the progress our medical staffs are making in medical science. The increase of the average life span in the last four centuries, from twenty to fifty-eight years, cannot be attributed to any single agency; but in my judgment the university is the most effective agency thus far known for reducing disease and improving public health.

¶ Northwestern University is making a distinct contribution in reducing wickedness and increasing right doing. When the suffering from wickedness is caused by the wrong doing of others we speak of it as injustice. In relieving suffering due to injustice, the Law School of our University contributes directly by training law students, by legal assistance to the unfortunate and by research work in the administration of justice. We attempt to train all law students so that they will take a professional pride in their work and will be guided in their practice by high ethical ideals. The faculty, students and alumni maintain the Criminal Clinic and cooperate in the operating of the Legal Aid Bureau of the United Charities. In these ways our law school seeks justice for 11,500 unfortunates annually. Faculty members of the Law School are today active in three surveys of the utmost importance to Chicago with respect to its police and to the administration of civil and criminal law. The Law School has rendered distinguished service not so much by the concrete instances here cited as through its contributions towards preventing injustice by the improvement of the law and by advances in legal education and legal procedure.

University Hall

¶ Although no courses of instruction in religion are required, courses on all phases of religion are offered, and are widely elected by our students. Courses in ethics are offered, not only in the College of Liberal Arts, but also in the various professional schools. High ethical standards are insisted upon in the student body, although the widest consistent freedom is permitted.

¶ We accept as students only those who have succeeded in graduating from high school, and who by their achievements in school have demonstrated more than ordinary ability. We do not despise the less capable; but it is not possible for a single institution to serve all types, and we believe our greatest usefulness is attained by confining our efforts to the training of potential leaders. With progress in civilization there is an increasing demand for leaders who are capable and worthy. Such leaders will not only assist the present generation to reap the benefit of progress already made, but they will also be those most likely to discover new truth, so that future generations will reap even a greater benefit. Each school of the university and each department of each school equips leaders by enlarging their intellectual horizon, by quickening their mental faculties and by encouraging them to develop ennobling ideals.

¶ Northwestern is one of the outstanding research institutions of America even though our chief concern has been to train wise leaders for all phases of human endeavor. In attempting to reduce ignorance and to increase wisdom the University is organized into thirteen schools.

¶ The College of Liberal Arts, on the Evanston Campus, enrolls 2,400 full-time students, and is the largest of all our full-time schools. It attempts to give instruction required in the preparation for the learned professions or for a life of culture, refinement and effective service. The Graduate School, on the Evanston Campus, enrolls some 400 students. It provides training in research and also shares with the School of Education the responsibility for training teachers for high schools and for institutions of higher learning.

¶ The Medical School, in the Montgomery Ward Memorial Building, on the McKinlock Campus, provides for 500 students. The Law School, in the Levy Mayer Hall and the Elbert H. Gary Law Library Building on the McKinlock Campus, enrolls some 400 students The Dental School, in the Montgomery Ward Memorial Building, enrolls some 400 students. The School of Engineering, in the Swift Hall of Engineering, on the Evanston Campus, enrolls some 300 students. The School of Music is housed in three buildings one block west of the Evanston Campus and enrolls 300 students. The full-time School of Commerce, in Commerce Hall on the Evanston Campus, enrolls 400 students. It trains students in particular phases of modern business; and attempts to increase our understanding of business, by analyzing business practice and by varied forms of research The part-time School of Commerce, in Wieboldt Hall on the McKinlock Campus, enrolls some 6,000 students and performs the same function as the full-time School of Commerce. The School of Speech, in the Annie May Swift Hall on the Evanston Campus, enrolls 300 students. It trains students in the science and art of spoken and written English. The full-time School of Journalism is housed in Commerce Hall on the Evanston Campus, and the part-time School of Journalism is housed in the Wieboldt Hall on the McKinlock Campus. The combined enrollment is 300. Each of these schools attempts to train students for modern journalism and to improve the ethical standards and the efficiency of the modern press. The School of Education, in the Education Building on the Evanston Campus, enrolls 200 students and trains them for classroom and administrative responsibilities in all types of educational institutions.

¶ As is indicated by the sum of these enrollments, Northwestern already is a large university. However, with two possible exceptions, each of the thirteen schools is relatively small. The enrollment in each is limited, as it is not our desire to become a larger institution. Our aim is to improve the quality of the service rendered by all the schools.

THE CHICAGO PUBLIC SCHOOLS

THEIR STORY TRACED FROM LOG-HOUSE ERA

By

H. WALLACE CALDWELL

President
Board of Education of Chicago

¶ Chicago was little more than a trading post and garrison at the time the first school (private) was opened in the fall of the year 1816 by a discharged soldier, William L. Cox, who had seen service in the war of 1812-14. The log building which housed the first school belonged to John Kinzie, Esq., and had been used as a bakery before it was converted into a school. It stood near the intersection of Pine Street and Michigan Avenue.* The pupils who attended the school during the first term of its existence were four of Mr. Kinzie's children and three children from Fort Dearborn. According to the earliest records, the first public school building was erected in 1844, although the public schools had been in operation for several years before that time. This building was located on Madison Street between State and Dearborn. It was known as the Dearborn School until it was torn down several years later to make way for business buildings. The enrollment in the public schools during the year 1840 was 317. The instructional staff numbered four teachers. From these humble and inauspicious beginnings the Chicago School System has grown to gigantic proportions. The teaching staff for the year 1928-29 numbered 13,094, while the number of pupils enrolled was 473,697.

¶ The United States census report for 1840 showed in that year a population for Chicago of 4,853. According to the most reliable figures, our present population is 3,157,400. While the growth of the city has been very marked, the percentage of increase in the school enrollment has been even more pronounced.

¶ In every rapidly-growing city the most pressing problem of the school administrators and boards of education is that of providing ample accommodations for the increasing number of children. From the very beginning of free schools in Chicago this difficulty has been present. It is the one problem from which there seems no escape. Various makeshifts and temporary expedients have been adopted, such as "portables," half-day divisions, relay schools, and double schools, but to no avail. In the Third Annual Report of the Superintendent of Schools for the year 1856 appears this statement: "So rapid has been the growth of the City, that, notwithstanding the large provision which has been made for increasing our school accommodations during the past year, there has never been a

*Pine Street is no longer to be found on the more recent maps of Chicago for the reason that it was absorbed a few years ago in the Michigan Avenue widening project.

period when the demand for additional houses to meet the wants of the school is greater than at the present time. Not only are most of the school rooms of the City filled to their utmost capacity, but in several cases it has been found necessary to add at least 50% to the number in a room, after every seat had been filled." The condition just described has continued in the Chicago Schools. Many citizens are under the impression that this is a situation peculiar to the present. Some believe that the World War was in some way responsible for the seat shortage. The real causes are more deeply rooted.

¶ Concurrent with the great increase in school enrollment are the mounting costs of school maintenance. This is a phase of education with which most persons are acquainted. It is easy enough for the property owner to appreciate the fact that his taxes for the support of schools are on the increase; but he is uninformed as to the reasons back of these enlarged demands. An analysis of the underlying causes which have combined to bring about the striking increase in the costs of education leads to a two-fold classification. In the first group are included those factors that are broad and fundamental. The second group is made up of elements that are more or less incidental to the first but not less important. In the first division are to be found the following: (1) the natural increase in population; (2) the general drift of population toward the cities, where congested living conditions and the great complexity of urban life have resulted in the shifting of the responsibility for all education from the home to the school —even in amusements and in the most intimate personal matters; (3) the reduced purchasing power of the dollar, which has resulted in a consequent increase in the costs of all commodities and of personal service; (4) a growing appreciation of the value of the training which the schools give.

¶ In the second group are included: (1) a greatly widened range of the educational program; (2) an enrichment of courses of study; (3) compulsory attendance; (4) the lengthened school year; (5) the disposition of the general public to demand all of those attendant conditions which will give to their children the best possible educational advantages; (6) the marked tendency in the larger population centers to differentiate between the various forms of service rendered by the schools and the resultant multiplication of organization units.

¶ It is a fact generally recognized that the standard of living in the United States is higher than that to be found in any other country in the world. Concomitant with an increased appreciation of those factors which have combined toward making city life more pleasant is an even higher valuation which the American people have come to place upon education. They are demanding for their children the very best educational advantages the community can afford.

¶ Progress in almost all lines of endeavor is first initiated in our larger centers of population. This applies to education as well as to commerce and industry. The history of educational progress in the United States makes it clear that in our larger cities particularly, new departures and new methods of teaching which bring about modifications and changes in school organization and policy are far in advance of legislation which makes them legal and protects boards of education in authorizing expenditures of public funds in support of progressive movements in education. There was a time when "the three R's" constituted the program of studies in the Chicago Public Schools. It is obvious that the needs of the present are much greater than those of the past, and the schools must do everything in their power to meet these new requirements.

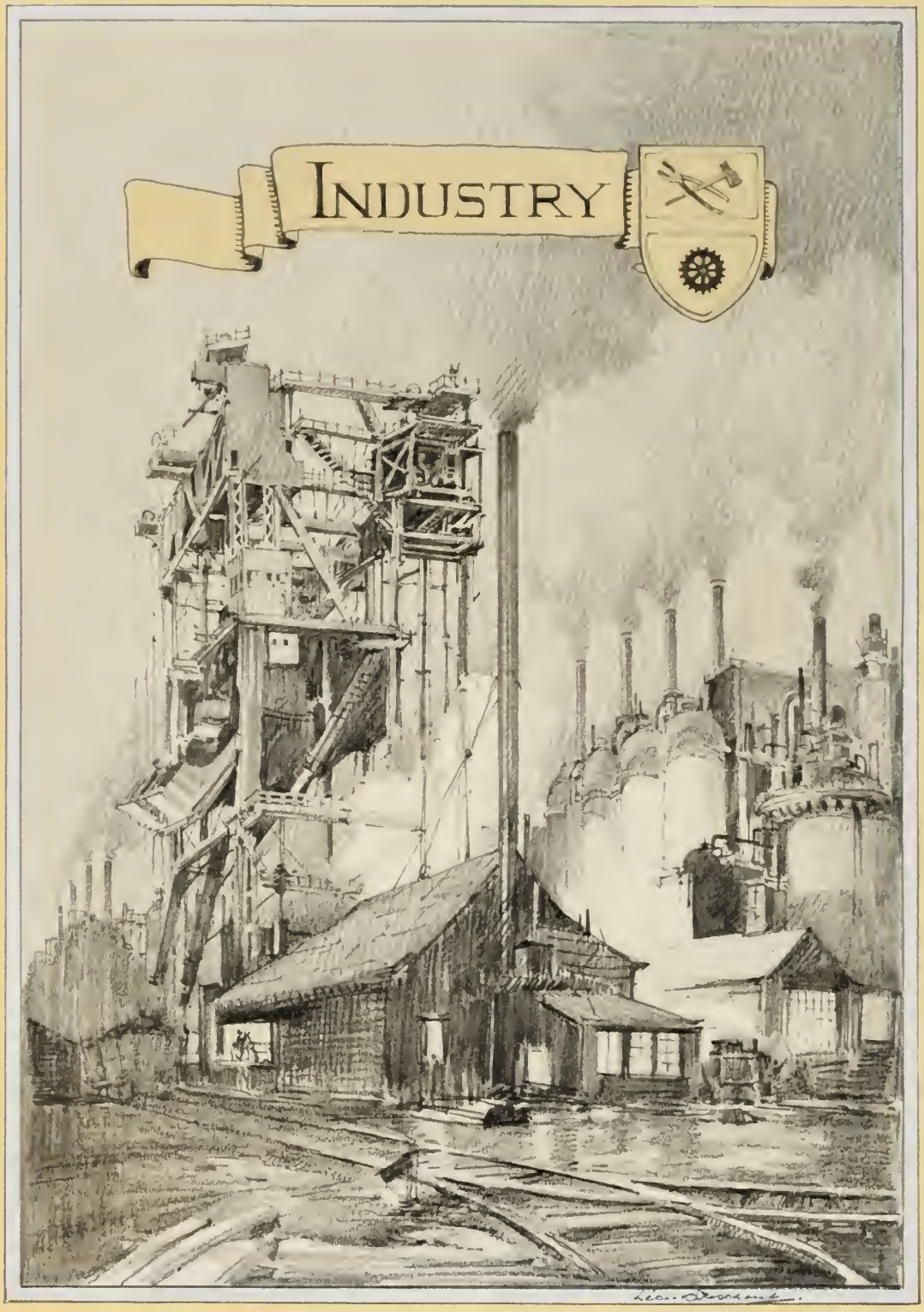
¶ The diversity and complexity of school organization varies directly with the population. No longer are the activities of the schools confined solely to the kindergarten, the elementary and the high school. Provision has been made in all the large cities of the country for the maintenance of teacher-training institutions for the purpose of supplying the needs of their own particular school systems. Correctional schools for delinquents have been established. Special divisions for children who are physically or mentally handicapped have been organized. Evening schools are now widespread. One of the most noteworthy develop-

Learning and Mastering a Trade Will Be Helpful to These Students

ments in the field of education within recent years is that of the municipal university. The influences which have brought about this expansion are still in operation. The American people are undertaking to provide all those educational opportunities that are desirable for the individual from the time he reaches the age when he can be entrusted to the care of the teacher in the schools until he has finished a post-graduate course in the university. The tendency of the times is to supply all of those educational facilities which might contribute to the welfare of the individual from early childhood to old age. In all of these directions Chicago has been in the vanguard of the educational procession. In some particulars the Chicago Schools have been the first to initiate ideas that have been followed by other cities throughout the United States.

¶ The most outstanding characteristic of the Chicago Public Schools is their tendency to expand. This expansion results in a greater differentiation of school functions. Humanitarian considerations have exercised a very strong influence in determining the policy of school administrations and boards of education. The maintenance of community centers, Americanization classes, playgrounds and other similar interests, can be fully justified on the ground that these activities contribute toward ends which are of great social significance and value. In view of this fact, the cost of the service which the schools render cannot be measured in terms of money.

¶ We are developing in Chicago an educational program comprehensive enough to include not only a mastery of the fundamental processes; but, in addition, a type of training that will educate both children and parents in matters pertaining to health, both mental and physical. We are attempting to "put first things first," by recognizing that ethical character is of supreme importance. Provision is being made to afford each child an opportunity to develop in the fullest possible degree the abilities and capacities he may possess; to take abvantage of the many cultural and esthetic advantages the city affords; to assume leadership in school activities; to be open-minded and tolerant; to cooperate with his fellows in matters of civic interest, and to contribute to the general welfare of his city whatever of talent he may have. The schools of Chicago are seeking to develop in youth the latent possibilities of human character, so that the larger life may be cultivated in service to city, state and nation.


INDUSTRY

INDUSTRIAL IMPORTANCE OF THE DOMINANT CITY OF MIDWEST AREA

By

JAMES D. CUNNINGHAM

President
Illinois Manufacturers' Association

¶ Pere Marquette and Louis Joliet, I believe, were the first persons who realized Chicago's possibilities as an industrial center. This was more than 250 years ago, when they paddled to the site of the future metropolis in two frail, birchbark canoes, in company with several other French-Canadian voyageurs and one or two Indian guides. On their voyage of discovery from the Green Bay Country, which ultimately took them down the Mississippi as far as Arkansas, these two trail blazers stopped long enough in the area to be occupied centuries later by Chicago's loop district, to be impressed with its possibilities as a center of trade. Musty records in faded ink and the quaint French script of that period, now on file in Quebec, quote Father Marquette and Joliet as predicting that the site of Chicago was destined to be the heart of a great inland empire in the center of the richest region these intrepid French pioneers had seen. They referred to the unlimited water transportation possibilities, and even discussed the advantages of a waterway that would lead from the Atlantic Ocean down the St. Lawrence River, through the Great Lakes, the Illinois and the Mississippi Rivers to the Gulf of Mexico.

¶ We are still waiting for that much-needed waterway, but prospects for getting it are excellent. It would not surprise me if within five years Atlantic steamers would be warped to the "snubbing-posts" of Chicago docks, permitting uninterrupted commerce with South America and the Orient by means of huge freighters plying the Illinois and Mississippi Rivers.

¶ Chicago did not amount to much as a manufacturing center until the year of its incorporation, 1834, with a scant population of 250 persons, although there was some manufacturing before that date. Soon after John Kinzie built a cabin on the north side, in 1803, on a tract that he bought for $300 and which now is worth more than a billion, meat packing was started on a small scale. Deer meat was salted, packed and shipped to New Orleans in pirogues, the dugout canoes then much used. There is a record of a meat-packing house being located on the north branch of the Chicago River as far back as 1827, where cattle were killed for the dignified, shako-wearing soldiers comprising Fort Dearborn's garrison. The meat-packing and tanning business was the city's chief industry by 1834. From three to six and sometimes as many as a dozen cattle were killed daily in the city's three slaughter houses.

¶ James A. McCall, who arrived in Chicago on September 8, 1833, on a lake barge from Montreal and found a job at $1.50 a day in the tannery of John Miller on the south branch of the Chicago River, wrote to his brother at Charlottesville, Canada, as follows:

¶ "There is no doubt a tanner would do well here. Mr. J. Miller and several more gentlemen want me to start in the tanning and curing business. There is no tannery short of eighty miles and no end of hides here. They fetch them as far as 160 miles and sell them as low as three and fourcen ts for green hides and six and eight cents for dry hides. Almost any kind of business is good here. Wages are high and workmen scarce. It looks like timbering, tanning and merchandising are to be the main industries. When I came here last fall there were only fifty frame houses in Chicago. Last Sunday I counted that there were 628. Sometimes four or five new buildings are begun in a day. About 212 new buildings are groceries and stores. We have a good many carpenters here now, but there is work for as many more. The high cost of living is serious. The seven taverns in the business district charge anywhere from $2.50 to $3.00 a week and can get it easily owing to the steady increase in population. Fortunately I can board myself elsewhere at a dollar a week."

¶ So, you see, even as far back as 1834 there were manufacturing possibilities in Chicago, a building boom and a "high cost of living" problem. The first flour mill was erected in 1836, the first plow was made in 1834 and the first foundry was started in 1835. Other industries followed from time to time. By 1857 there were manufacturers here of flour, soap, glue, starch, wine, beer, packed beef and tanned leather—with a combined capital of $1,639,000, and with 639 hands employed.

¶ It's a far cry from those pioneer days when skin-clad frontiersmen and gaudily-painted, blanketed Indians sauntered through the dusty streets of the thriving little town, down to the present time when Chicago produces annually $3,478,753,628 worth of manufactured products. The cost of materials, fuel and power in the manufacturing industries, according to the latest government census in 1927, amounted to $1,889,847,571. During that year there were paid out in wages in Chicago, $576,159,118 to 372,061 employes. This was for 9,955 establishments.

¶ These government census figures are for the territory embraced within Chicago's municipal limits. If the entire area of Metropolitan Chicago or "Greater Chicago" is included, the value of the annual production of manufactured products would be not far from $5,000,000,000. The Chicago Metropolitan district embraces the thriving industrial section that extends to Waukegan on the north, Gary, Indiana Harbor and Hammond on the southeast, Chicago Heights and Joliet on the south and southwest, and Aurora and Elgin on the west. It includes in addition to Chicago, the counties of Cook, Kane, DuPage and Will in Illinois, and Lake in Indiana. This district is the fastest growing steel center in the world, and soon will surpass Pittsburgh in that respect if it has not already done so.

¶ Slaughtering and meat packing in 1927 continued to be the chief industry of Chicago, with a value of products amounting to $557,607,956. The cost of materials, fuel and power amounted to $484,447,369. Chicago is the great market for the products of the farm—cattle, hogs and sheep. So the predictions of 1834 have been fulfilled in a manner far outspanning the dreams of Mr. McCall who wrote home to his brother in Canada. The wages of 25,115 persons in the packing industry amounted to $35,658,621, in fifty-seven establishments.

¶ But Chicago has become more than a center of the meat-packing industry; and distinguished foreigners who consider the abattoirs our city's most thrilling industry might to their intellectual advantage spend some time in investigating the printing and publishing business, which in book and job work alone has an annual production of $155,686,168 and employs 23,272 men and women at an annual wage of $44,084,398. It is one of the most prosperous industries in the United States and holds second place in Chicago. The newspaper and periodical branch of the publishing business has an annual production of $140,806,635, in 414 establishments employing 49,974 persons, the payroll in 1927 amounting to $15,219,942.

¶ Foundry and machine-shop products have an annual production of $151,611,942. There were 492 establishments listed in this industry, employing 21,992 men, with an annual wage of $37,240,199. Another important industry is electrical machinery, apparatus and supplies, with 214 establishments employing 17,972 persons at an annual wage of $24,723,937 and an annual production amounting to $147,681,654.

¶ Some others of the larger industries, with the value of their annual output, are as follows:

Clothing, men's, except work clothing	$121,372,274
Iron and steel works and rolling mills	112,831,375
Paints and varnishes	68,903,063
Confectionery	66,749,229
Cars, electric, steam railroads	58,967,287
Clothing, women's	58,876,015
Iron and steel, blast furnace	58,652,248
Steam fittings and hot water heating apparatus	38,287,414
Planing mill products	32,999,146

¶ There are other items that are worth while considering in connection with a review of Chicago's industrial activity. Chicago is a

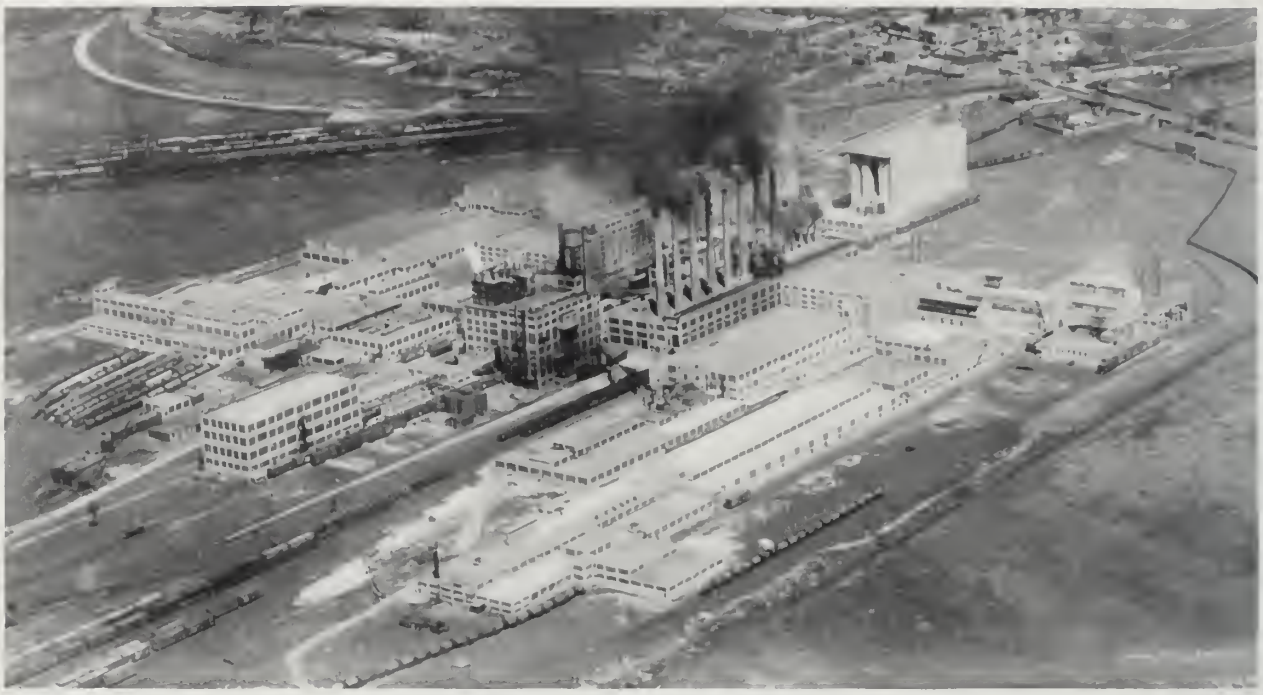
TOYLA FIZDALE

The Glare of the Steel Mills Can Be Seen for Miles

great center of food products other than meat. Bread and bakery products amount annually to $101,978,353. The butter industry is valued annually at $4,431,691. Canning and preserving of fruits and vegetables, pickles, jellies, preserves and sauces total $14,419,276; chocolate and cocoa products, $2,675,153; coffee and spices, $43,780,310. Beverages were produced to the value of $9,194,902. Soda water apparatus for some of these beverages has the annual production of $11,848,396. The importance of the ice-cream industry may be gauged from the fact that the annual value of the product amounts to $16,677,748. Macaroni, spaghetti, vermicelli and noodles account for $3,039,635. A good deal of this food goes into cans and we find there are nineteen manufacturers of tin cans and other tinware in Chicago, with 2,597 employes, producing annually $19,532,943 worth of goods.

¶ Not long ago the Illinois Manufacturers' Association sent out a story stating that the largest lipstick factory in the world was located in this city; and in this connection we find the annual production of perfumes, cosmetics, and other toilet preparations to be $15,735,676.

¶ Chicago, as the second city in industrial output in this country, is destined to lead the world in the output of manufactured products. It is in the center of the world's richest country, and in the center of the twenty-seven states which are predominantly in the central basin of the continent, drained either by the Mississippi or St. Lawrence Rivers and which ultimately will reap the benefit of the Lakes-to-the-Gulf Waterway. This area has 54 per cent of the population of the United States and 66 per cent of the rural population. It produces 64 per cent of the exportable products of the United States and 70 per cent of all the agricultural products. Its percentage of the manufacturing output is 52. In mineral output this rich inland empire accounts for 95 per cent of the coal of the United States, 92 per cent of the coke, 65 per cent of the gas, 78 per cent of the gasoline, 97 per cent of the iron ore, 91 per cent of the pig iron, 94 per cent of



Corn Products Refining Company Plant

the lime, 64 per cent of the potash, 66 per cent of the salt, 71 per cent of the petroleum and 66 per cent of the gypsum.

¶ The central basin's percentages of crops are as follows: Corn, 86; wheat, 81; oats, 87; barley, 71; rye, 88; potatoes, 53; sweet potatoes, 60; hay, 64; wild hay, 93; clover seed, 87; cotton, 62; cottonseed, 61; tobacco, 52; broom corn, 100; grain sorghum, 95; peanuts, 53, cane sugar, 99; beet sugar, 64; sugar cane, 84; cane sirup, 69; sorghum sirup, 62; wood, 62; livestock, 74. This is the production of 295,000,000 acres.

¶ In manufacturing this basin's percentages are: Agricultural implements, 82; artificial stone products, 69; automobile bodies and parts, 74; automobiles, 90; awnings, tents and sails, 51; boots and shoes, 26; brick, tile, terra cotta, etc., 58; butter, 73; carriage and wagon materials, 69; cheese, 63; copper, tin and sheet iron, 52; electrical machinery, 32; engines, steam, gas and water, 63; flour and grist mill products, 71; miscellaneous food products, 60; foundry and machine shop products, 48; furniture, 53; glass, 51; iron and steel work, 89; leather, 35; lumber and timber products, 57; oil, cotton seed cake and meal, 57; paints, 48; paper and wood pulp, 30; miscellaneous rubber goods, 56; slaughtering and meat products, 73; structural iron works, 69; turpentine and rosin, 77.

¶ Why should not Chicago be the greatest manufacturing center of the world? With its thirty-eight railroads, including twenty-three trunk lines terminating here, it is the largest railroad center in the world. Five electric lines enter the city, three of them furnishing freight and baggage freight service. Seven belt and switching roads connecting with eight industrial lines are available to handle the metropolitan industrial output. Chicago has all the natural advantages of central location, transportation facilities by rail, air and water, a market which cannot be excelled and an energy and enthusiasm which cannot be repressed.

RETAIL CENTER THAT ANNUALLY ATTRACTS MILLIONS OF SHOPPERS

By

D. F. KELLY

President, The Fair

¶ Throughout the many years of Chicago's growth, the city has developed a definite position among the leading retail trade centers of the world. From the beginning, its commercial possibilities were many. By providing an ideal geographic location, nature paved the way for the pioneers who established here a trading post and later incorporated the City of Chicago. But publicity must be given a considerable share of the credit for placing the city in its present prominent position. The fire in 1871, the World's Fair in 1893, the Eucharistic Congress in 1925 and other important events have done much to further Chicago's position. Credit must also be given to our basic industries, such as farming, packing and lumber; to the influence of the Board of Trade; and to the rise of the steel mills which were established in this vicinity.

¶ The growth of Chicago has had a vast influence on the development of the entire western area of the United States. Nurturing the infant industries of this section, Chicago was certain to realize a great reward for such service. The city became the great metropolis of the midwest; the people of the surrounding regions, grown accustomed to marketing their wares in Chicago, reciprocated by procuring here many of their own needs. Of recent years the good roads movement plus the automobile have made it possible for hundreds of thousands to do their shopping in Chicago. Tourists in great numbers are constantly passing through Chicago. The commercial importance of this fact is significant. Not only do these visitors contribute to the business of our stores, shops and theatres; they also are valuable envoys to carry afar favorable publicity for the city.

¶ The late John Wanamaker was known to say, "Men make their money elsewhere and spend it in New York." While this still holds to some extent, makers of fashionable wearing apparel, jewelry and kindred lines look to Chicago as a retail center. In fact, many of them have established retail stores in this city, which was the first in the world to establish what is now known as a department store. Chicago has its "cathedral of stores" which, with its manufacturing, jobbing and retail facilities, makes Marshall Field and Company the greatest merchandising institution of its kind. The fame of State Street's show windows extends around the world. Setting an artistic standard, they are frequently copied by retail institutions in other cities.

¶ Considering its remarkable growth in the past and the excellent outlook for its future, merchants believe that Chicago will continue to expand, and that eventually it will be the greatest retail trading center in America.

Retail Shopping Section of State Street at Night

WHOLESALE OPERATIONS ARE CONDUCTED ON GIGANTIC SCALE

By

FREDERICK H. SCOTT

Vice-president
Carson, Pirie, Scott & Co.

¶ So long as we have demands from great distances, and a wide diversification of products, so long shall we have the wholesale distributor. The wholesale function is a necessary and economic fact. There must continue to be central distributive agencies, central reservoirs of supply—anticipating and providing for market needs, breaking down and reassembling car shipments, financing, warehousing, selling and assuming risks. No other city in the world is so favorably situated for the economic and efficient performance of the wholesale function as is Chicago, and no other city has capitalized on these advantages in so great a degree.

¶ Chicago wholesale trade has passed the tremendous figure of $4,484,761,000. (Census of distribution report, 1926.) The value of this business may be visualized when it is understood that the wholesale trade represents five-twelfths of the entire trade of the city, that it carries a payroll of $258,000,000 annually, and that it employs 122,181 of our citizens. The extent of this trade is more difficult to visualize, for it is not confined to the boundaries of the forty-eight states, but extends to practically every civilized country.

¶ The Federal census of distribution made in Chicago in 1926 brought out many startling facts concerning Chicago's trade. It was learned for the first time that our total business (wholesale, retail and manufacturing) reached the startling total of almost twelve billion dollars. This represents one-eighth of the total trade of the United States in the year when the census was made. It indicated further that Chicago was by far the leading wholesale center of the country. The following schedule tells the story:

Meat and Poultry	$347,817,000
Groceries and Delicatessen	319,605,000
Drygoods and Notions	292,644,000
Fruits and Vegetables	241,496,000
Iron and Steel	232,356,000
Hardware and Agricultural Implements	215,741,000
Dairy and Poultry Supplies	215,003,000
Coal and Wood	179,325,000
Hay, Grain and Feed	174,015,000
Furniture and House Furnishings	173,010,000
Electrical Appliances and Supplies	163,968,000
Automobiles	143,499,000
Paper and Paper Goods	136,528,000
Lumber and Planing Mill Products	119,693,000
Drugs	115,439,000
Gasoline and Oil	115,439,000
Automobile Parts and Accessories	102,037,000
Plumbing and Heating Fixtures	81,093,000
Women's Clothing	67,811,000
Jewelry and Silverware	59,022,000
Men's and Boys' Clothing and Furnishings	47,547,000
Trunks and Leather Goods	45,349,000
Cigars, Cigarettes and Tobacco	42,898,000
Paints, Varnish and Glass	34,298,000
Musical Instruments and Sheet Music	32,527,000
Stationery, Books and Magazines	32,127,000
Boots and Shoes	30,324,000
Radios and Parts	30,213,000
Office Equipment	27,523,000
Confectionery, Ice Cream and Soft Drinks	24,743,000
Toilet Articles, Preparations and Soaps	24,525,000
Cement and Lime	20,678,000
Bakeries	20,175,000
Brick, Tile, etc	19,000,000
Fur and Fur Clothing	18,802,000
Millinery and Artificial Flowers	16,194,000
Fish and Other Sea Foods	15,373,000
Sporting Goods	11,110,000

¶ Chicago is the food-stuff center of the world. When one thinks of the city, one instantly recalls our meat packing industries, our Board

of Trade, South Water Market and wholesale groceries. It is generally understood that Chicago ranks foremost also as a drygoods center, hardware center, agricultural implement center, furniture center and as the center for wearing apparel of all kinds. A survey of the wholesale trade shows that this city offers to the retail merchant the country's widest market, its largest stocks from which to choose, the promptest service and the greatest saving in time as well as in freight rates. Confirmation of this statement is found in the great number of firms engaged in business, and in the tremendous number of merchants who are using this city as their source of supply. The great wholesale drygoods distributors serve over 20,000 retail stores, and representatives of the best distributors from other centers maintain displays in the Chicago wholesale district. Incidentally, this district is so compact, and yet so all-embracing in the goods carried, that it is the easiest area in the world in which a merchant buyer may shop.

¶ The magnitude and progress of the clothing industry of Chicago may be gauged from the fact that in 1900 there were about 18,000 clothing workers, and that today the total number is 50,000. Chicago is one of the largest markets in this country in which to purchase women's, children's, infants', and misses' "ready-to-wear." This industry has grown 233% since 1914, and in recent years has reached out even into eastern territory, developing a very considerable business in many eastern states.

¶ For diversity in style and price, and for advantages in distribution, Chicago has assumed a leading position in the millinery field. Chicago millinery is sold in every state in the Union and is exported to a number of foreign countries. "Carrying coals to Newcastle" is nothing compared with shipping millinery to Paris; yet that is exactly what one Chicago milliner has done on a number of occasions. In Chicago, models that sell from a few dollars a dozen up to $50 each, may be purchased by the retail trade. There are some distributors displaying as many as 5,000 hats on a single floor.

¶ More fur coats are shipped out of Chicago than from any other market. This city is the leading wholesale market for manufactured furs. Of especial interest in this industry is the fact that the annual Fur Fashion Exhibit of Chicago is the fur show "par excellence" of the country. As many as four million dollars' worth of fur apparel have been exhibited at a single show of this kind.

¶ The tremendous wholesale distribution from Chicago has been constructed on sound economic plans and upon natural geographical advantages. It was inevitable that this city's wholesale trade should grow; and it is just as inevitable that it will continue to grow.

"South Water Market"

THE MEAT-PACKING INDUSTRY IN CHICAGO

By

LESTER ARMOUR

¶ Chicago's fame as one of the great cities of the world rests on a firm foundation of achievement and supremacy in many different lines; but it is safe to say that meat packing was one of the first stones set in that foundation. In the minds of most persons throughout the world, perhaps, it was the most important one.

¶ What does the average visitor wish to see in Chicago? No matter what the chief purpose of his coming, a visit to the stock yards and the packing plants is part of his plans during his stay in the city—and the farther away he lives, the more likely he is to insist on including Packingtown in his itinerary. Doubtless more persons know of Chicago as the world's center of the meat-packing business than as a world leader in any other line of commercial activity.

¶ When the ribbons of steel, which now make Chicago the railroad queen of the world, were still so few as to form the bare skeleton of the close network which one finds today—back in the 50's and 60's of the last century—Chicago's stock yards and her pioneer packers were wresting supremacy from other packing centers, and laying foundations for the related industries centering around the Union Stock Yards. It may be argued that Chicago's position as a rail center contributed to her upbuilding as a packing center; but when one considers that the railroads can be successful only where there is business, it seems equally logical to point out that the packing business was a big factor in building up Chicago's railroad supremacy. This is the more easily understood when one realizes that since the early years of this century more than 250,000 carloads of livestock have been received each year in Chicago, and nearly one-fifth as many re-shipped. Even as long ago as 1882, 177,228 cars were received—a sufficient indication of the business then built up for the railroads entering Chicago. Imagine a string of forty car freight trains on a single track crowded so close together that the engine of one could be coupled to the caboose of the train ahead; picture to yourself these trains stretching for seven miles, and you have some idea of the average amount of livestock received and shipped every one of the 365 days of the year at the Union Stock Yards in recent years.

¶ Chicago's location was ideal for the establishing of a great central livestock market. Tapping what was to become the greatest agricultural region in the world, and connected directly by rail and water with the great industrial and population centers of the East, obviously it was destined to be the home of the great packing concerns which sprang up in the late 60's and 70's, and were vigorously developed by their far-seeing founders.

¶ Chicago's location today is as strategic as it ever was. It is the chief metropolitan trading center of "the world's bread and meat basket" —the Mississippi valley; it is the center of the world's greatest network of railroads, making possible the quick distribution of perishable products to all parts of the country; and it is within 250 miles of the country's center of population.

Packing Town

¶ In the early days, each railroad, which was picking its way through the prairies west of Chicago, maintained yards for livestock at or near its city terminus, and these different railroad yards quite naturally were in different parts of town. The slaughterers located wherever it seemed most convenient for them, with the result that stock yards and slaughtering houses were to be found in many different sections of the city. There was much inconvenience in such a system. Animals had to be driven through the streets to the slaughter houses, and purchases of livestock at times had to be made in many different yards resulting in considerable economic waste and not a little excitement upon such frequent occasions as when a half-wild steer deserted the herd and went on a rampage through the streets.

¶ In 1865 John Sherman and a group of far-seeing associates purchased a square mile of land far southwest of what then was the city limits, where they arranged for adequate rail connections and opened Chicago's Union Stock Yards. Shortly, all other yards were abandoned; the slaughter houses were moved near to the new yards, for the sake of convenience, and the foundation of the present stock-yards district was laid. Thus was established the center of slaughtering activity which, in connection with Chicago's other advantages, led such men as Philip D. Armour, G. F. Swift and Nelson Morris to go into business in the firm conviction that there was ample room for tremendous expansion in the industry, which was then beginning to outgrow its swaddling clothes—to prove that through efficient handling and processing, meat foods could be shipped from a convenient center of livestock production to cities which theretofore had depended on local, and often unreliable, slaughter and supplies.

¶ The growth of Chicago's packing business is perhaps best emphasized by a comparison of the figures for slaughter from the time the stock yards were opened to the present. In 1866, the first full year of their operation, not

Loading a Refrigerator Car Bound for the Coast

over three-quarters of a million head of cattle, calves, hogs and sheep were slaughtered in this city. Thirty years later, fifteen times as many were handled in the packing plants which had grown up. Every year since 1895 has seen ten million head of livestock slaughtered—and sometimes many more, especially during the war years when this country was figuratively if not literally "feeding the world," and when nearly fifteen million head passed through Chicago slaughter houses.

¶ Chicago draws its supply of livestock from the upper Mississippi valley and from the ranches and farms extending westward across the prairies into the Rocky Mountains. The bulk of cattle and hogs is from Illinois, Iowa, Indiana, Missouri and Nebraska; but shipments from a thousand or fifteen hundred miles away are common.

¶ The meat from the Chicago packing plants is sold largely in the populous eastern cities, but distribution is sufficiently widespread to justify the statement that it goes all over the world. Wherever there is a market for meat, the Chicago packers have supplied it; and in doing so they have helped to bring prosperity to the middle west, by turning its surplus production into cash gathered from the rest of the world.

¶ A typical day in the Chicago stock yards sees thousands of cattle, hogs and sheep unloaded from trains in the early morning hours, sorted into pens and offered to buyers for the various packing plants. Sales are made entirely on a trading basis. Packer buyers are guided by their knowledge of the prices prevailing in the markets for meat, while owners of the livestock, or their agents—the commission men—keep close tab on the supplies which are available. Thus, prices are the result of the application of the law of supply and demand.

¶ After the packers acquire ownership of the livestock, the animals are driven to the killing departments where they are dispatched in the most humane and modern ways. The carcasses are "dressed" and placed in great chill-rooms, maintained at just above the freezing temperature; and from there they are moved directly into refrigerator cars for transportation to branch houses at their ultimate markets. The distribution of meat has been worked out so carefully that fresh, wholesome product is available in every part of the country at all times and at prices which are remarkably close to the cost of the raw material plus the slaughtering and handling charges.

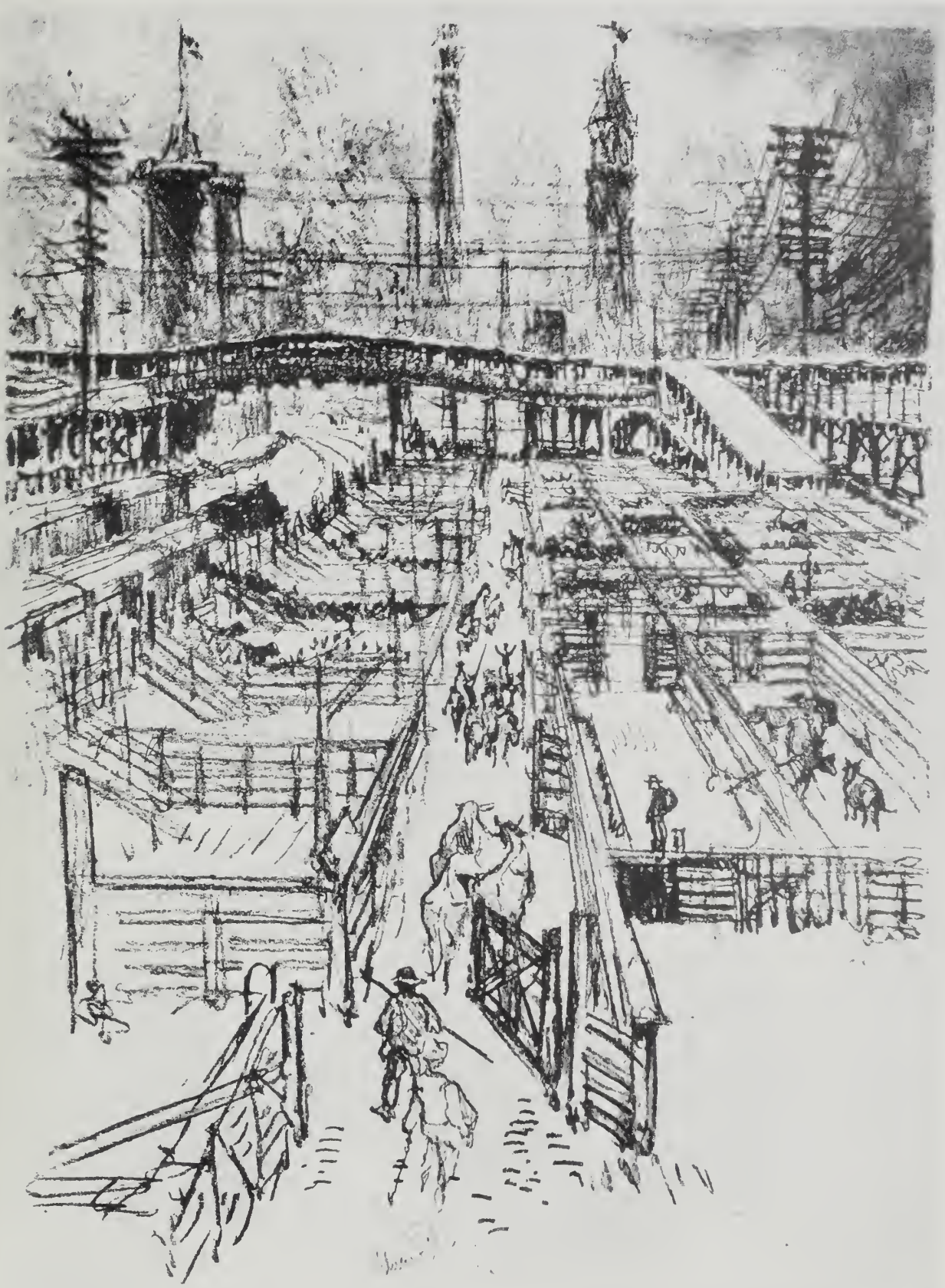
¶ Wages and working conditions at the larger

Chicago plants are largely in the control of conference boards made up of representatives of the management and employes. These conference boards are of rather recent date, but they have been in operation long enough to give reason to believe that the labor problems of the industry have been solved.

¶ Chicago's preeminence in the meat-packing field is not one of size alone. Her great packing firms have taken the initiative in constantly developing new products and new uses for old products. The results of research may have been more startling in some other fields, but nowhere has that research been more intensive nor have its discoveries been more readily applied than in the meat-packing business. Since "by-products" first became a by word in connection with meat-packing, no new meats have been "invented"; but styles, methods of packaging, methods of curing, smoking and handling all these have undergone revision and improvement, seeking greater efficiency in handling, greater convenience to the purchaser and the highest economic value from the available materials. In no line of industry has science worked a more wonderful transformation during the last half century than in the utilization of the by-products of packing plants. That anything beautiful, pleasure-giving or valuable could be derived from what in the early days was regarded only as the nuisance of packers' waste, to be disposed of at great expense and seldom with satisfactory results, was at one time inconceivable. Yet, all this and more has been brought about in the modern packing establishments through the employment of the best scientific talent obtainable and decades of patient application.

¶ There was a time, not so far back as the Civil War, when the only items of value derived from the slaughter of hogs, cattle and sheep were pickled meats, hides, lard and tallow. All else was wasted. Such items as hearts, livers, brains, ox tails, kidneys and sweetbreads, which find a ready market today, were quite valueless then. These edible by-products were given to anyone, but only a very small proportion of the total tonnage could be disposed of even by this method. The satisfactory disposal of what remained constituted a source of great expense and was an insanitary nuisance. Furthermore, there were enormous quantities of the less attractive elements of waste. Much of it was, at considerable expense, dumped or hauled by wagon to trenches where it could be buried, or to the open prairie where it was scattered about to be devoured by land animals and gulls from the lake. The day came, however, when all that was changed. Experiments at making glue from certain classes of packers' waste were being conducted as early as 1869 by some concern which ventured into this most uninviting field—a field, however, which has since contributed much to industrial development in many lines of manufacture. The fertilizing value of dried blood was recognized in a practical way about 1870. Meats were successfully canned by the Appert process before 1875, and then the struggling oleomargarine industry began to make claims upon the packers for the more delicate grades of all beef fats that hitherto had remained unclassified. Previous to this all forms of fats had been dumped indiscriminately into candle stock, or sold as inedible grease.

¶ From these early beginnings the historical development of packing-house by-product utilization is a long story. Today not a single element of what formerly was spoken of as "packers' waste" is discarded as being of no value. Perfect scientific control forestalls all tendencies to disintegration, from the moment of killing until each element arrives upon the market in commercial form, neatly packed, labeled, standardized as to quality and adapted to some particular need. The large-scale utilization of the by-products of meat-packing has been found practicable only in the largest plants. It has been made possible by two factors: First, the recent developments in large-scale control of mechanical refrigeration; and second, the enormous volume of business which justified the big packers in making equally enormous investments in plant and equipment. The manner in which perfect refrigerative control contributes to the utilization of by-products may be illustrated by the



JOSEPH PENNELL

JOSEPH PENNELL

"The Yards" Cover a Square Mile

instance of the pineal gland. This gland is about the size of a pea, and only one is found in the carcass of each steer. It is used in the manufacture of pineal substance, and 15,000 of the glands are required to produce one pound of the drug. It is evident that with a shortage in supply of these glands, or with inadequate facilities for preserving them, the production of pineal substance would be wholly impractical.

¶ Thus has the packing industry, centering in Chicago, grown from the position of supplying little besides meats, lard, tallow and hides, to its present status of producing a wide variety of articles we all regard as essentials of our lives. It is the development of these products, and of a market for them, that enables the packer to sell his chief product—meat—far more cheaply than if by-products were an expense instead of a source of revenue. He is able to pay more for meat animals, and yet sell more cheaply, with resulting benefit to the whole community. It is because Chicago's great packing firms have thus taken the lead in developing ever-growing efficiency, as well as because their products are favorably known, that Chicago and its Packingtown have won world-wide fame—such fame that almost every visitor to the city insists on seeing "the Yards."

The BIRTH And DEVELOPMENT OF CHICAGO'S MAIL-ORDER MERCHANDISING

By

GEORGE B. EVERITT

President
Montgomery Ward and Company

¶ Among the many reasons for Chicago's outstanding importance in present-day national and international business is the fact that it is the mail-order center of the entire world. How this unique industry originated and developed is one of the truly significant romances of modern merchandising.

¶ In a fourth-story room, at what is now 825 North Clark Street, a young business man by the name of A. Montgomery Ward started in 1872, with one clerk, a total capital of $2,400 and the idea—at that time revolutionary in business practice—of using the United States mails exclusively for merchandising purposes. Associated with him as partner he had an old-time friend, George R. Thorne; and together the two men issued, as their first catalogue, an eight-page booklet printed on a foot-power press.

¶ Such a departure in merchandising challenged an older order, and by many business men its failure was predicted from the start. The notion was ridiculed. Wiseacres asserted that trade could not be built up "sight unseen" through the printed word alone; that it must be done through tangible merchandise, supported by personal selling. However, the idea *did* prosper from the very beginning—unquestionably due to the basic honesty which from that day to the present time has characterized the mail-order business in general. From that extremely modest beginning, mail-order merchandising has steadily grown to international proportions. In striking contrast with that first catalogue just mentioned, the latest merchandise book issued by Montgomery Ward & Co. numbers seven hundred and twenty-four pages, and lists more than forty thousand different articles of merchandise, elaborately illustrated and described, with many pages printed in full color. This pioneer firm, together with Sears, Roebuck & Co. and a number of other Chicago mail-order organizations, constitute one of the greatest industries in the world, serving considerably more than one-half of all the people in the United States and receiving liberal patronage from twenty-seven foreign countries.

¶ Not only do these Chicago houses conduct an extensive domestic business, but they also transact a huge volume of export business in China, India, the Philippine Islands, Central and South America, and many other foreign regions. Buying offices are maintained in the chief marketing centers of the world, and large staffs of buyers devote themselves to travel, locating and securing merchandise suitable for the thousands of varied lines handled by their respective houses. In this way, goods are secured from practically every producing country; while merchandisers and designers located in such style centers as London, Paris and New York enable these various concerns to keep abreast of shifting fashion trends to meet the demands of their customers.

¶ When Congress passed its Act of August 24, 1912, taking effect in January of the following year, whereby parcels could be delivered throughout the United States at a greatly reduced rate, tremendous impetus was

A Section of Montgomery Ward's Huge Mailing-Room

given to the entire mail-order industry. Parcel post delivery at once enabled customers to patronize the mail-order houses at a decided saving in transportation costs, and proportionately stimulated the business of all such houses engaged in marketing by mail.

¶ At the present time, the two leaders in the mail-order business operate on a scale so varied and widespread as to present a picture nothing short of amazing. Montgomery Ward & Co. alone, for example, maintains huge mail-order branches in Chicago, Kansas City, St. Paul, Baltimore, Portland (Ore.), Oakland, Ft. Worth, Denver and Albany; and in addition, has in active operation more than five hundred retail stores throughout the United States, including a number of large department stores. This same house also numbers at the present time a total of more than twelve million customer-families. Sears, Roebuck & Co. have a similarly large organization, comprising ten mail-order branch houses and more than two hundred and fifty retail stores throughout the country. It was in 1926 that both these leaders in the field first entered actively into chain-store retailing—establishing their stores in strategic trade-centers, not only in the rural districts but in many cities as well. The first such store was originally opened by Montgomery Ward & Co. in Marysville, Kansas, simply as an experiment in merchandise display, where persons from the neighboring territory could see the goods and then send orders to the mail-order house for whatever articles were desired. Almost immediately, the customers insisted not only on *seeing* on the spot, but *buying* on the spot—and from this circumstance was developed the retail-chain idea which since has become as successful as it is widespread.

¶ Mammoth stocks of merchandise are carried by both of the mail-order leaders, to supply total orders running into millions of dollars; and in addition, both houses control the output of, or own outright, numerous factories for the production of their various lines of larger merchandise items. Each marketing

Well-Equipped Laboratory in One of Chicago's Large Mail-Order Houses

division of either of these houses constitutes in itself a store-and-factory organization of immense dimensions.

¶ By means of accurate tests conducted over a period of many years, experts of Montgomery Ward & Co. today are able, simply by weighing incoming mail, to determine from the weight the amount of current ckecks and orders received in any given postal delivery. So great is the volume of daily parcel post and correspondence reaching both leader houses that each maintains a complete United States Post Office branch in each of its mail-order headquarters to facilitate the handling of routine mail.

¶ The leaders maintain well-equipped laboratories, in which samples of merchandise are exhaustively tested—from devices which, in the course of days, put a fountain-pen through service equivalent to years of writing, to machines which test steel to the breaking point and rubber to its destruction. Elaborate chemical tests are conducted on all fabrics and metals; and all merchandise of whatever sort receives testing far more severe than it ever will get in service to the purchasers.

¶ In the progress and prosperity of America's "second largest" city, the mail-order industry has played a conspicuous and highly important role. With the further development of chain-store retailing, side by side with direct selling through the mails, the future variety and scope of the business will become still more pronounced.

HOW CHICAGO TOOK LEADERSHIP AS A RADIO CENTER

By

B. J. GRIGSBY

President
Grigsby-Grunow Company

¶ Scarcely more than eight years ago radio as a device for furnishing entertainment in your home was practically unknown. Up to that time its use had been confined principally to government enterprise, to the safeguarding of navigation and to amateur experimental effort. Under those conditions it was perfectly natural that the radio industry, as constituted at that time, should offer but little lure for the investment of capital either in Chicago or elsewhere.

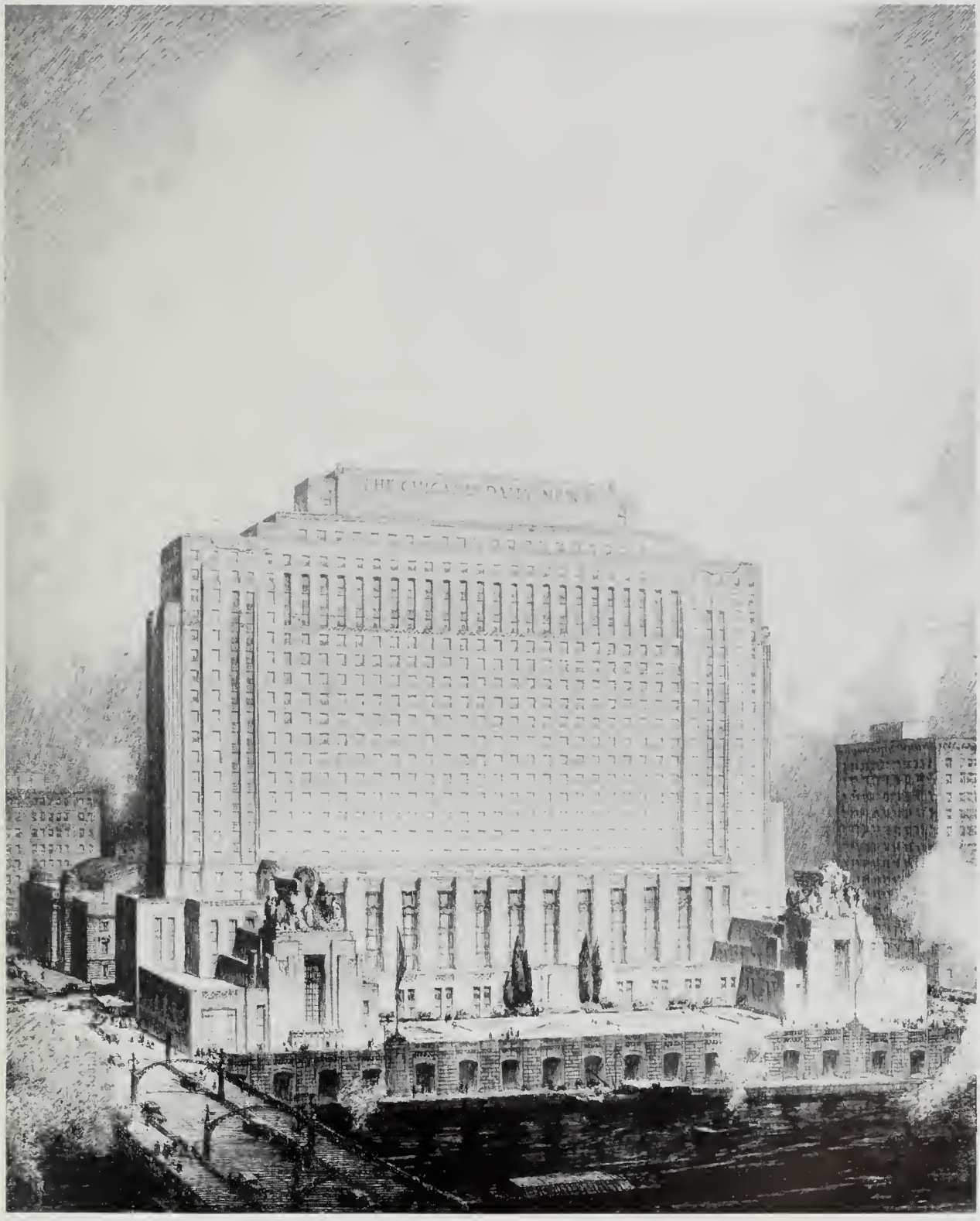
¶ But when, in the autumn of 1921, radio for home use came into being and the public responded so tremendously to what it had to offer, an entirely different picture was presented. It immediately became apparent that radio was destined to be not only one of the great industries of America, but one which would attract the best brains and the keenest capitalists in the country. From the very first, Chicago has had a dominant part in the development of the radio industry. In keeping with the "I Will" spirit of this great city, which means that Chicagoans do nothing by halves, some of the greatest radio plants in the world were founded in Chicago. Because of its central location and many other advantages, it was only fitting that Chicago take the lead as a radio center. Chicagoans as a whole seemed to become "radio-minded," almost over night; and even in the early days of the manufacture of radio devices there appeared to be a wealth of brains and initiative available for building up radio industries in Chicago.

¶ One concern in Chicago, recognized as the largest in the world, is making every part of a radio outfit including chassis, speaker, cabinet —making radio receivers complete at the rate of 6,000 console sets per day. With other radio concerns engaged in producing materials for various other branches of the industry, there can be little to argue about as regards Chicago's standing as a leader in the field of radio. Accurate comparative figures are difficult to obtain; but the amount of business done by radio concerns in Chicago, as compared with what is done in other cities, is far in the lead.

¶ Chicago investors in the radio industry believe that radio science is really in its infancy. This may seem an astounding statement to one who has not given deep thought to the matter. In view of the tremendous amount of business already done in the radio field, and because of the tremendous publicity given to it, the average layman is accustomed to think of the industry as rapidly approaching its peak —if indeed the peak has not already been reached. But such is not the case. Under the searching gaze of the statistician, we find that although America has quickly become "radio conscious," there are uncounted millions who have yet to purchase their first radio receiver; and there are other uncounted millions who yet are to know the thrill of owning a modern radio set which is as different from the original type of receiver as a modern automobile is different from a "one-hoss shay."

Finishing Radio Cabinets in the World's Largest Furniture Factory

¶ What of the future of radio? Television, for practical use, yet a mystery, still is in the offing, to be solved commercially. Probably when a real, practical television set for the home is developed it will be developed by Chicagoans, or rather by Chicago capital. A Chicago radio manufacturer already has established foundations in many colleges for the development of new things in radio. He is creating in Chicago one of the greatest scientific laboratories ever yet approached by laboratory organizations, either in the radio industry or any other field of endeavor. Out of this progressiveness on the part of Chicago capitalists are certain to come new things in radio that perhaps some day will be as startling as was the radio principle itself, when it first burst upon a waiting world. From all of which it may be seen that Chicago, never backward in anything, has taken the lead in radio development; and unless some unlooked-for calamity arises, Chicago intends faithfully and consistently to maintain that leadership.



Chicago Daily News Building
Broadcasting Station WMAQ Atop

MILLIONS OF WEARERS BUY CLOTHING MADE IN CHICAGO

By

ALFRED DECKER

¶ The men's clothing industry in Chicago ranks fifth in volume in the industrial life of the city. The first important development is set in the historic background of the Civil War, which laid a basis for the first transition to large-scale production. While it cut off the Southern market, it substituted government orders for uniforms in enormous quantities. The results were large establishments, factory buildings erected for the trade, standardizing of sizes, styles and processes; a greater subdivision of labor, and more efficient methods of production. The uniform trade furnished the manufacturers with the knowledge of sizes required in quantities, and so prepared them to manufacture in advance of demand. When soldiers returning to civil life began looking for ready-made civilian clothing, the manufacturers could supply it. In 1869 the men's clothing industry expended twice as much for material as in 1859.

¶ The decade of 1870 to 1880 was a flourishing one for the industry. It was a great pioneer period. Immigration increased the demand and also furnished the labor. Railroad construction and extension opened up the West and Southwest. Thousands of new communities grew up and the demand for ready-made clothing grew by leaps and bounds. Chicago became an important clothing center. There were no drastic changes made in the manufacture of ready-made clothing until the beginning of the Twentieth Century. It was at this period that the so-called "hand-me-down" evolved into a suit of clothes fit for the most fastidious to wear. The scene of these revolutionary changes in the construction of clothing was Chicago. These new forces naturally gravitated towards a city which was centrally located. From that time on there was a steady growth of quality with volume. Merchants from all over the country met in this great market and were influenced by its ideas and activities. Chicago manufacturers emphasized the qualitative and creative side of the industry and did considerable pioneer work in the education of the American public to finer ready-made clothing. The industry rapidly took on a new phase. During this period of change Chicago reached first place in the making of fine clothing. The largest factories in the business became established here. It is significant that three of the best known nationally advertised lines in the United States are manufactured in Chicago. The magnitude and progress of the industry may be gauged from the fact that in Chicago in 1900 there were about 18,000 clothing workers and the retail value of ready-made clothing produced was about eighty million dollars. Today the retail value is in excess of 200 million dollars.

PASTEUR

UTILITY ORGANIZATIONS THAT SUPPLY CHICAGO WITH MODERN SERVICES

By

BERNARD J. MULLANEY

Vice-president
People's Gas Light and Coke Company

¶ "Your modern city," says a paraphrase of an older aphorism, "can be judged by the character of its local public utilities"—its suppliers of electricity, gas, local transportation and telephone service. By this yardstick, Chicago is of a stature to excite the envy of its compeers among the great cities of the world. The character of its composite public utility service probably averages higher than that of any other metropolis.

¶ Obviously these all-pervasive public utility elements of the city, as an organism, are of a nature that precludes listing them in the itinerary of a sight-seeing 'bus. You cannot motor through them, walk around and look up at them, or take camera snap-shots of them. To the casual eye they are either collections of financial and statistical figures or unobtrusive items in community "furniture and fixtures." Their full significance as community assets is revealed only by examination and evaluation of their extent and strength, their sufficiency and efficiency, their usableness, and especially the use made of them. This evaluation to be complete should include the human enterprise, energy and vision put into their development and operation, for it is the human ingredient that animates, motivates and energizes them and so determines finally their character.

¶ Much of the pioneering and pace-making, in the development of these services throughout the country to a degree unknown in other lands, has been done here. Development of the city itself has been intertwined with the laboratory-like study for progress continually carried on by Chicago utilities. To persons psychologically inclined, this might suggest a question analogous to that of the ancient "poser" on which came first, the chicken or the egg. Has the public utility pioneering and pace-making here sprung from the "I Will" Chicago spirit, or has utility progressiveness been a mainspring of "I Will" in this wonder-city's rise from a swamp? Perhaps, like the chicken and the egg, and regardless of priority, each has been potent in the functioning of the other.

¶ But real, progressive utility service has to be conceded some special weight among city growth-factors for a very definite reason. It has to grow *ahead* of the city, not just *with* the city. You cannot take orders for electricity, gas, transportation and telephone service and fill them next month or next year. Each service has to be ready when wanted, and it has to be efficient or it will not be wanted in requisite volume. Chicago utility service generally has exemplified this progressiveness, reflected not only in the high grade of the service itself, but also in the lavish use of it by the population. This lavish use testifies to the right pricing of the various utility services here. Nothing restricts volume output like high pricing; and volume is vital to utilities. Chicago utility management has led (as in many other respects) in establishing the credo, now generally accepted elsewhere, that the ideal objective of a public utility is: Largest possible volume of output (or service), and use of it for the greatest possible variety of purposes by the largest possible number of users, at the lowest possible rates consistent with the physical and financial health of the service-supplying agency.

¶ Electric service, because it is the youngest of the four, synthesizes most clearly, perhaps, this Chicagoesque progressiveness. Mass-production and distance-transmission of electrical energy, for example, are conceded to be at the bottom of the development trends that have made ours the Age of Electricity. Both originated in Chicago. In the subsequent evolutionary progress, most of the pace-making has also originated here, the consequences of which are locally reflected as follows:

¶ Chicago is, as the late Dr. Charles P. Steinmetz put it, the center of "the world's greatest pool of power," of usable and used electrical energy. A single day's production of electricity here last year (1928) exceeded the total production of World's Fair year—1893. With only 2.6 percent of the national population, we have 4.6 percent of the country's total electricity output. Practically every home and every business, commercial or industrial, has electric service; and use of it here last year averaged 1,100 kilowatt hours per capita. The average for the United States was 720, and for London only 296 kilowatt hours. Yet this service is only forty-two years old, and has been supplied at steadily declining rates from the first, without a single increase even in wartime. In 1928 it paid $7,894,000 in taxes, or 10.6 cents of every dollar received. It is home owned and home managed service; seventy-four percent of its stockholder-owners live in Chicago. The efficiency and economy with which the service is operated is reflected in the following figures: In twenty-five years its number of customers has increased 33.4 times and its output has increased 45.3 times; but the income from sales of electricity has increased only 19.5 times, the capital invested in it has increased only 10.2 times, and the number employed to operate it has increased only 5.9 times.

¶ Chicago gas service is seventy-nine years old, and it has been *continuous* through every moment of time since it began on September 4, 1850. Some parts of the supply-system were put out of commission in the Great Fire of '71, but the whole service never has been interrupted. Its output in 1928—41,000,000,000 cubic feet of gas—was the largest of all centrally operated gas-supply systems. Its chief gas-making plant and newest holders are "the latest" in capacity and efficiency. This service, like the electric, is an exemplar of pioneering and pace-making in mass-production and other modern utility principles. More than half of its 1928 output came from one plant, with seven others for part time use and reserve. Inter-connection of the distribution system with neighboring systems is applying the distance-transmission principle. One striking phase of the service seldom realized by outsiders is this: In the beginning it was exclusively a gas-lighting service. It is now almost exclusively a gas-fuel service. The transformation has been wrought without a single recession in output except for a brief after-the-war readjustment period; otherwise each year's output has been an increase. Growing use of gas-fuel for a multitude of industrial purposes and for house heating, in which Chicago has pioneered, has been a factor in this. Industrial use in 1928 exceeded the combined total gas-output in the fifteen largest Illinois cities outside of Chicago.

¶ The Chicago surface lines, an evolution from the one-mule-car days and electrically operated throughout, constitute the largest street railway system in the world under single management. They also provide the longest ride for one fare—upwards of thirty-five miles—and the most liberal transfer privileges in this class of service. The average speed of the cars for the entire system is 11.3 miles per hour, the highest average of any street railway system in the country. Last year (1928) there were more than 1,500,000,000 rides on the surface cars—the equivalent of carrying the entire population of the city more than 400 times. Upwards of fifty percent of the daily passenger load is carried during five hours of the twenty-four—two and one-half hours in the morning and again in the evening. This service has 2.6 percent of the total electric railway mileage of the country, has five percent of all electric railway employes in the country, and its payroll is nearly seven percent of the total wage bill of all American electric railway lines. This street car service pays more than $5,000,000 a year in taxes. It paves, maintains, cleans and sprinkles that part of the

Intersection of Wacker Drive and Michigan Avenue at Night

streets occupied by its tracks, and since 1907 has turned into the city treasury upwards of $55,000,000 from its net receipts.

¶ Chicago rapid transit service by elevated electric lines is also in a class by itself. The average speed of its trains is nineteen miles an hour, and it provides a 24-mile ride for one fare, with common transfer privilege from one line to another. On its regular routes during the morning and evening rush hours, the interval between its trains is only two minutes and throughout the day it is only six minutes. Its average daily car movement is the equivalent of 18,300 cars operated in 5,300 trains, and the aggregate distance covered daily by these cars is 175,000 miles—equal to seven times around the earth at the equator. This service is an evolution and consolidation from five separate elevated line services formerly operated as separate units. Its extensions beyond the city limits, its connections with suburban rapid transit electric lines—three of them are the fastest electric railways in America—and its 'bus adjuncts, extend rapid transit service to a large part of the metropolitan area surrounding Chicago. For the effect of good local transportation and rapid transit service upon population distribution and general city development, one has only to observe the upbuilding of outlying areas within the city limits and adjacent territory during the last fifteen or twenty years.

¶ Chicago got its first telephone in 1877. By 1880 it had something less than 2,000. On June 30, 1929, the number was 961,122. London has 600,000 'phones and Paris 325,000.

The Beginning of a Telephone at Hawthorne Works Where Ninety Per Cent of Those Used in the United States Are Made

Chicago's number exceeds the total number on the continents of Africa and South America combined. The ratio of 'phones to population here in 1880 was one to 169, and in 1929 it is one to 3.6 persons. The number of daily calls here averages 4,214,333. The calls per hour vary from a few thousand after midnight to 430,892 per hour during the busy time of the day. To facilitate use of the service 3,753,689 directories, alphabetical and classified, are distributed annually. This quick-communication service requires the use of 4,000,000,000 miles of wire, enough to encircle the earth 160 times; and 13,375 operators—approximately 30,000 employes of all classes in Chicago and adjacent suburban territory. The annual payroll of the service (including "down-state" service for Illinois, which is under the same management) is $45,750,000. Closely affiliated with the service (and also a Chicago institution) is the largest plant on earth for the manufacture of telephone apparatus and equipment, with normally more than 38,000 persons on its payroll.

¶ In evaluating the public utility services in Chicago, a factor of prime significance would seem to be this: The identical influences—the vision, enterprise and energy—from which so much of the pioneering and pace-making has sprung are still at work. The services are still predominantly operated by the very men who have developed them and by assistants trained in their school. What could better assure their continued growth and usefulness as community assets?

ORIENTAL
UNITED
GRILL
DeMets
CANDIES
15¢
Liggett's Drug
CENTRAL CREDIT
CLOTHING CO

STEEL PRODUCTION IN AND NEAR CHICAGO ON A TITANIC SCALE

By

EUGENE J. BUFFINGTON

President, Illinois Steel Company; Director, United States Steel Corporation

¶ The steel industry in Chicago was started in the year 1857, when Captain E. B. Ward, owner of a small iron furnace and bloomery at Wyandotte, near Detroit, Mich., built a blast furnace and rolling mills on the North branch of the Chicago River. That plant was known as the North Chicago Rolling Mill. Shortly thereafter Captain Ward and his associates built a similar plant, known as Union Works, on the South branch of the Chicago River. A few years later they built a blast furnace and rolling mill at Milwaukee, Wis. Total production of pig iron in the United States was then about 800,000 tons annually, only a small part of which was refined into steel. Capacity of a blast furnace was then about 250 tons of pig iron per week. Today many blast furnaces are producing at the rate of 1,000 tons of pig iron daily.

¶ In 1864 Sir Henry Bessemer invented a new process for refining pig iron into steel. This process revolutionized the industry, and by improving quality and lowering cost of production it increased greatly the use of steel. Captain Ward installed at his Wyandotte plant experimental facilities for production by the Bessemer process. In that year the first steel ingots produced at Wyandotte were sent by sailing vessel to the North Chicago Rolling Mill and there were rolled into steel rails. Those were the first steel rails rolled in the United States.

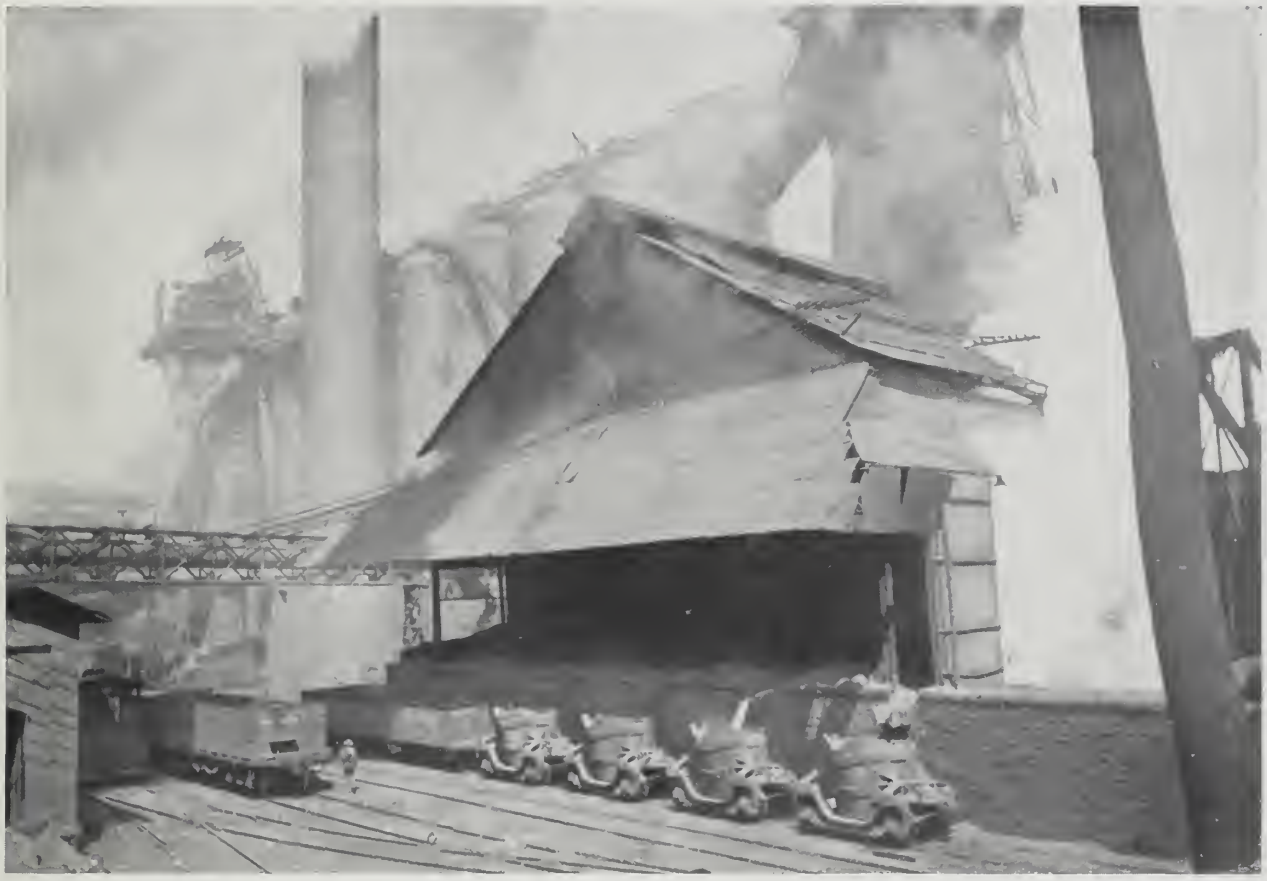
¶ Shortly thereafter plants for making steel by the Bessemer process were installed at the North Chicago Rolling Mill, at the Union Iron Works in Chicago and at the Joliet Rolling Mill Company's plant at Joliet, Illinois. In 1899 ownership of these several plants in Chicago, Joliet and Milwaukee was consolidated into one company, and was incorporated as the Illinois Steel Company. This was the first merger of important steel-producing interests in the United States, a forerunner of subsequent large mergers which integrated a large part of the industry into companies controlling ample supplies of practically all raw materials essential to the industry. Following the organization of the Illinois Steel Company other plants were built in this district. They included large plants of the Inland Steel Company, Wisconsin Steel Company, Youngstown Sheet & Tube Company, Interstate Iron & Steel Company and many large plants for the fabricating of finished steel products. Construction of Gary Works, at Gary, Ind., operated by the Illinois Steel Company, was begun in the year 1906. It produced its first steel in 1908. Gary Works is the largest steel-producing plant in the world.

¶ An illustration of progress in the industry since the year 1860 is found in the records of steel production in the United States during succeeding decades. In 1860 about 10,000 tons of steel were produced. In 1870 annual production reached 88,000 tons. In succeeding decades there was rapid increase in annual production, resulting in 732,000 tons of steel in 1880, 4,277,000 tons in 1890, 10,190,000 tons in 1900, 26,094,000 tons in 1910 and 42,132,000 tons in 1920. Last year (1928) approximately 50,000,000 tons of steel ingots were produced in the United States, representing about one-half of the world's production in that year.

Location of Chicago on the Great Lakes Provides Transportation by Water for the Assembling of Ore and Limestone

¶ In the Chicago district the steel industry has kept pace with development in other parts of the United States. Last year about 10,000,000 tons of steel ingots were produced in the Chicago district, equivalent to about one-fifth of the country's production. The advantages of Chicago as a location for steel production assure further rapid growth of the industry in this area. Location of Chicago on the Great Lakes provides transportation by water for the assembling of ore and limestone, the essential raw materials. Nearby deposits of coal, with unexcelled railroad transportation facilities, provide the necessary fuel. Markets tributary to Chicago provide increasing demand for steel products of all kinds. These natural advantages enjoyed by the Chicago district make further development of the industry in this district inevitable.

¶ The extent to which steel enters into modern life, with new uses being developed almost daily, makes it appropriate to refer to this as the "Age of Steel." It is interesting to note that consumption of steel in the United States last year was equivalent to almost one-half ton per capita of population. The variety of uses to which steel is put relates it intimately to the daily life of every man, woman and child. Last year 18 per cent of all steel produced in the United States went into the construction of automobiles. This is a comparatively new use of steel. Railroads used 16 per cent of all steel produced in the United States last year. To provide new homes, offices and other essential structures required 16.5 per cent. Agriculture consumed about 6.5 percent, and the remainder went into uses too varied to enumerate here.



Stream of Molten Iron Can Be Seen Pouring from Blast Furnace into a Bucket Car Ready for Converting into Pig Iron and Steel

¶ Importance of the industry in Chicago is emphasized by the fact that it affords employment, at good wage rates, for approximately 75,000 workmen, with total payrolls amounting to about $150,000,000 annually. It requires about six tons of raw materials for the manufacture of one ton of steel. To produce 10,000,000 tons of steel last year, over 60,000,000 tons of raw materials were assembled at the steel plants in the Chicago district. Transportation of this immense tonnage adds greatly to the traffic of railroads centering in Chicago.

¶ The growth of the industry in Chicago is increasing the dependability of Chicago as a source of steel supply, thereby attracting to this district many industries which use steel in semi-finished form for fabrication into a great variety of finished products. Large amounts of capital formerly used for purchasing steel requirements in other producing districts now are retained here, with great benefit to all commercial interests of Chicago and the Middle West.

CHICAGO'S IMPORTANCE IN THE COUNTRY'S FURNITURE TRADE

By

V. L. ALWARD

President, American Furniture Mart; Vice-President, Chicago Association of Commerce

¶ As the manufacturing center of a continent, Chicago naturally is the leader in furniture manufacturing, and the merchandising headquarters for the industry. This great city—the crossroads of America—has firmly established itself in a position of leadership in manufacturing because it is in the center of the region in which raw materials may be obtained, also distribution is easier from Chicago than from any other spot on the globe. With Chicago's population of more than 3,000,000 persons, it is easier to secure employees than where the supply of skilled labor is limited. It is the foremost selling headquarters because of its easy accessibility to more than half the population of the country.

¶ Within Chicago's city limits are more than 250 factories making articles which may be classified strictly as furniture, and there are nearly twice that many others producing merchandise usually classified as household utilities. The finest furniture made today, the medium grades and the popular priced all are manufactured here. In Chicago and within a 500 mile radius of the city, sixty-five per cent of all the furniture manufactured in this country is made. Much of it is within 150 miles of the city. At Rockford, Ill., Grand Rapids, Mich., Sheboygan, Wis., Evansville, Ind., and several other strategic points there are colonies of furniture factories, which find Chicago the convenient market place.

¶ The American Furniture Mart, erected in 1924, could not be operated successfully anywhere else in America because so great an institution must necessarily be located at the trade center of the nation's business. The Mart is a seventeen-story structure, beautifully situated on the shore of Lake Michigan at 666 Lake Shore Drive and occupying a full city block in the heart of the so-called "Gold Coast." It has a tower jutting thirty-four stories above the street. The building is more than 500 feet in length and over 200 feet wide. Through the erection of the Mart, the furniture industry became the best-housed industry in America.

¶ In this, the world's largest commercial building,* more than 700 manufacturers of furniture, including nearly every leader in the industry, display their products for the convenience of the retail merchants who come from all parts of America as well as from abroad. In its nearly 2,000,000 square feet of floor space are five miles of show windows. Fastidiously arranged and brilliantly lighted, the background afforded the furniture is as attractive as it is possible to make it.

¶ Twice each year wholesale "markets" or furniture style shows, are held in the Mart. The newest creations of the manufacturers are unveiled at this time, and approximately 7,000 buyers come to see the new furniture at each of these markets. They study the new designs, make comparisons of styles and prices, and then order stocks for their stores. Throughout the entire year, on every business day, the Mart is open to buyers. In 1928 some 32,000 of them entered its halls.

* The Merchandise Mart, under construction in 1929 and referred to elsewhere in this volume, will surpass the Furniture Mart in dimensions.—Editor.

Furniture Mart at Left

¶ On the 17th floor of the building is located the Furniture Club of America, the club home of the manufacturers, salesmen and retail merchants. Elaborately appointed, the furniture and decorations are what might be expected in a club for furniture men. Adorning the walls are thousands of dollars worth of oil paintings. One tapestry—a genuine Aubusson—is valued at more than $25,000. In the club restaurant more than 5,000 persons are fed daily during the market periods; and in the year 1928 the total number was in excess of 254,000 persons.

¶ The idea of a sales headquarters sufficiently large to house the furniture industry under one roof was given its first impetus by William H. Wilson, now vice-president of the Mart. Having been a furniture man for twenty-eight years, he traveled over the country selling space in a building which then existed only in his imagination. He secured leases, but for a long while he could find no one willing to invest the necessary money. Finally he took the scheme to Lawrence H. Whiting, president of the Boulevard Bridge Bank, who took over the whole project and accomplished its financing. It is estimated that furniture exhibited in the American Furniture Mart represents seventy-five per cent of all furniture sold at wholesale in the United States.

¶ Furniture stores of Chicago take fifth rank in the city's retail establishments and are credited in the federal business census, year of 1926, with sales of $100,096,100; but this does not tell the story as to how much furniture was sold by department stores, practically all of which have large furniture sections. If this was added, it would run the total to many millions in excess of the figures actually shown. In the sale of furniture and housefurnishings at retail, credited with 1,279 establishments, a total of 9,472 persons were employed in 1926. Of this number, 1,178 were heads of companies or proprietors; the others were employees. The total amount of salaries and wages paid reached $13,253,500. The stores on December 31, 1926, were represented as showing a total merchandise inventory of $20,124,300, with the average inventory for the year of $20,710,700.

Lounge in the Furniture Club of America

¶ Of the Chicago retail furniture houses, four do a business in excess of $1,000,000 annually; eight are between $500,000 and $999,999; twelve run from $250,000 to $499,999; twenty-six are from $100,000 to $249,999; 113 are in the class of $50,000 to $99,999; 145, $25,000 to $49,999; 262, $10,000 to $24,999; 163 are selling over $5,000 (and less than $9,999) annually; and 267 show sales less than $5,000 per year. The furniture turnover in the average store is 3.24 times, annually.

¶ By virtue of its superior location, its magnificent lobby—the finest entrance to a commercial building in America—its splendid interior arrangements, the American Furniture Mart is an inspiration to an industry and a credit to that great and ever-growing center of human activity which is Chicago.

WHERE CHICAGO STANDS IN THE ADVERTISING FIELD

By

HOMER J. BUCKLEY

Former Chairman
Advertising Council of Chicago
Founder and First President
International Direct Mail Association

¶ The growth of advertising in all its branches closely parallels that of the City of Chicago; in fact, advertising has played a large part in the development of the city's multitudinous resources. From the auction sale and steamboat sailing announcements of the 1800's, when Chicago was but a trading post at the mouth of a sluggish stream, this city's advertising activities have progressed to a point which marks Chicago as one of the leading producers of advertising in the United States. Indeed, it is now estimated that fifty-five per cent of all advertising originating in this country is "placed" in the upper part of the Mississippi Valley, the district in which Chicago is commercially dominant.

¶ In organized advertising, Chicago holds a high position. Here is one of the two great and active advertising clubs of the United States which have exerted a powerful influence nationally. Chicago is the headquarters for a number of advertising organizations national in scope. The agricultural advertisers have their principal offices in this city; so, too, has the Poster Advertising Association, and the Poster magazine is published here. The financial advertisers make Chicago their home. The Audit Bureau of Circulations is here. The greatest outdoor advertising plant in America is located in Chicago. In this city are the largest direct-mail plants, and it is well known that Chicago leads the world in mail-order advertising.

¶ In the mail order advertising field one local plant alone prints between seventy and one hundred million catalogs every year. Chicago is recognized as the center for direct-mail advertising. It has the largest plants for the production of this kind of advertising. In equipment and volume of printing, two of these are far beyond any other plants in the country that are designed and organized for the same purpose. The Direct Mail Advertisers' Association was organized in this city, and is incorporated under the laws of the state of Illinois.

¶ Industry and advertising in the metropolitan area of Chicago have gone hand in hand, each helping the other to achieve important and material success. Many of this city's enormous manufacturing establishments are not, in the broad application of the term, national advertisers. Their products are mainly merchandised by means of catalogs. Hence Chicago is the largest producer of catalogs for jobbers of mill supplies, electrical goods, plumbing supplies, auto accessories and sundry other articles which usually are sold to other manufacturers rather than direct to the ultimate user.

¶ Chicago is the agricultural advertising headquarters of the country. Other cities come to Chicago's agricultural advertising specialists and to the artists who specialize in agricultural subjects such as poultry, live stock, grains, farm buildings, etc. Approximately thirty-five million dollars' worth of advertising of

all kinds is placed each year in farm papers published in various parts of the United States. Chicago firms place about one half of that total. It comes from every direction; first flowing into Chicago, thence to flow out to the many farm journals.

¶ As to advertising appearing in magazines and other publications of national circulation, it is interesting to note that twenty years ago only a small fraction of the entire amount originated in Chicago or the West, while for the year 1924 it is estimated that more than one half of all national advertising in the United States originated in the Middle West.

¶ To understand present advertising effects and the means by which they have been produced, it is necessary to recall that the first big Eastern advertisers were highly successful institutions before they began advertising, but that the first great Western advertisers built their business by means of advertising. Many of the large industries of the Middle West owe their very existence to the advertising-sales campaign idea which originated in Chicago.

¶ In national advertising, the volume placed by agencies in Chicago territory last year was approximately one hundred million dollars. From that amount are omitted two groups of advertising activity: (a) Advertising placed by agencies operating in Chicago, but whose general accounting departments are in some other city; (b) business originating in Chicago territory, but placed by agencies elsewhere. The addition of this business would substantially enlarge the figures quoted. Chicago and New York are the dominant advertising markets and they share about equally in the history of advertising development, in spite of the fact that New York was rather firmly established as America's advertising headquarters when Chicago was still in the pioneer period of advertising.

¶ It was not until 1889 that the advertising specialty industry was started in Chicago. Today this city is the center of that branch of advertising. In it there are numbered ninety-seven firms actively engaged, employing more than 7,000 persons. The invested capital is well over eight million dollars and the annual output is over $30,000,000. An increase of sixty per cent in size and capacity for production has been made in ten years. The primary reason for this remarkable growth is that Chicago is the central shipping point and a big market to which buyers come from all directions. The products of the ninety-seven concerns consist chiefly of calendars, signs, thermometers; and various kinds of useful and amusing novelties made of paper, cardboard, celluloid, glass, leather, metal and other substances. Chicago is the headquarters of the Advertising Specialty Association, an international body.

LUMBER INDUSTRY CONTRIBUTES IN THE GROWTH OF OUR CITY

By

EDWARD HINES

Lumber merchant with extensive interests in and outside of Chicago

¶ The development of Chicago as a wholesale lumber market commenced shortly after the Civil War, and rapidly increased. The reason for the enormous shipments was that from an early date Chicago had not only the advantage of water transportation for raw product coming in, but was blessed as the greatest railroad center in the United States. Lumber which came by boat from the lake ports was shipped out in solid trainloads from Chicago to New York, Philadelphia, Washington, Baltimore and as far west as Denver. Lumber coming by boat to Chicago was shipped thence in trainloads through St. Paul and Minneapolis to other parts of Minnesota and to the Dakotas, before mills were erected in the interior of those states. The great prairie territory of Nebraska, Kansas, Indian Territory (now Oklahoma), Missouri, Iowa and Illinois were largely treeless. Lumber from the forests of Michigan and Wisconsin, and later Minnesota, was necessary, unless the progress of the prairie states was to be greatly hampered. No building material other than lumber was so available or so cheap. Not only did Chicago enterprise distribute lumber among the prairie states, but solid trains of lumber went from Chicago right through the great forests of Arkansas, Louisiana and Western Texas into San Antonio, Houston and others of the larger Texan cities.

¶ There has been a great change. Practically no more white pine goes through Chicago into those territories; but, to the contrary, southern pine is coming into Chicago. Through Chicago some goes to Michigan and the East, and some even north to Wisconsin. The course of shipment has been reversed in less than fifty years.

¶ During my apprenticeship in the lumber business in Chicago, in the early eighties, nearly all the Michigan and Wisconsin lumber destined for the West, South and Southwest came to Chicago by boat, practically all on consignment, to be auctioned off to the highest bidder. There were close to a hundred and twenty-five lumber yards in Chicago mainly doing a wholesale shipping business out of Chicago. These wholesale lumbermen would bid for the lumber on the cargo market, at that time located at the foot of Franklin Street. When a cargo was sold, the boat would be towed to the yard of the purchaser, the lumber would be unloaded and tallied at the unloading dock. The lumber would then be graded, piled and seasoned, to be distributed even as far as Boston in the East, south to the Ohio River, southwest to Texas, and west to Denver. With lumber being shipped into Chicago as a central point of receipt by water from all ports on the Great Lakes, including Canada, tributary to Georgian Bay; with these vast shipments coming into Chicago to be redistributed, because of Chicago's superior railroad facilities, the city became the largest lumber-receiving and lumber-shipping port in the world. This mighty commerce flowing into Chicago by lake and out by rail helped to establish her in supremacy as the foremost city of the Mississippi Valley.

Many Lumber Companies Owned and Operated Their Own Fleet of Sailing Vessels for Transporting Their Product

¶ About 1890 the timber tributary to the Great Lakes was greatly diminished, and the railroads were developing the interior territory and opening up the timber located back of the Lakes. Mills were being built throughout the interior of Minnesota, Wisconsin and Michigan. From 1890, for the next twenty years, the lumber trade was gradually being taken away from Chicago, and the product distributed direct by rail from these various mill points. As a wholesale lumber-receiving and shipping point, Chicago slowly but steadily declined. Through large wholesale yards, Chicago still holds its place as a great lumber center, where not only are orders given and received, but where ample stocks of lumber are assembled from the remaining mills of the North, from the entire South and from the far West.

¶ When the saw mills commenced to be active in the South, some twenty years ago, the shipments of lumber from them largely went direct from the mill to the point of consumption, though large quantities came into Chicago for local consumption in connection with the rapid growth of our city. Outside of the lumber that was used locally, this southern pine, while in many cases sold through Chicago, did not as in former years come to Chicago for distribution; but commencing about five years ago the South, gradually decreasing its timber cut, has been coming to the same condition (as far as lumber is concerned) that Michigan, Wisconsin and Minnesota have come to. The demands for soft wood are so great that the larger operators are rapidly becoming interested in the far West. This movement of large

manufacturers from the South to the West is once more bringing Chicago to the front as a wholesale market. The mills on the Pacific slope of the Cascade Mountains are shipping by water through the Panama Canal to the east coast of the United States, from where lumber is shipped westward, largely by rail, a comparatively short distance. Chicago, with its unsurpassed railroad facilities, is located most favorably for the marketing of a large proportion of the lumber that will come from Oregon, Wyoming, Washington and California. The large railroad systems of the West are finding Chicago the natural gateway to the East and giving it a proper "stop over in transit privilege" to encourage the yards here to carry large stocks for immediate shipment to the East, and to reconsign, through sales agencies here, vast quantities of lumber coming through Chicago.

¶ It is interesting to review the milestones passed in lumber receipts from our earliest history to the present time. The lumber shipped into Chicago first reached the 100 millions mark in 1850. By 1868 we had reached the billion mark. In 1882 the receipts totaled over two billions. Following the World's Fair in 1893, when there was general depression we dropped below two billions but again passed this mark in 1902. The three billions mark was reached by 1916 and a four billions mark was passed in 1925. Perhaps nothing can give us a truer picture of the importance of Chicago as a lumber market than the fact that her receipts have constantly increased even though timbering operations have been periodically removed to more remote sections of the country. While lumber from Michigan and Wisconsin and Canadian ports was flowing into trade channels through Chicago, it was only natural that this should be the greatest market. The most direct way to get lumber to the market, then, was to ship it to Chicago by boat to be carried further by rail or by canal boats. As early as 1900, receipts coming by lake carrier began to fall off, and in a very few years they ceased to be a factor. By 1920 they were less than fifty millions of feet, and in 1925 were only slightly over ten millions.

¶ Since early in the present century, the nation's lumber requirements have been supplied largely from the gulf states and from the Pacific Coast. In spite of this, Chicago has shown a constantly increasing volume and bids fair to continue to do so even though the greater volume soon will come from Washington, Oregon, California and Idaho. Chicago is the center for most of the financing of the larger western lumber manufacturing propositions, particularly in the sale of timber bonds, and of other means of financing operations of a large character. Many of the operators in the West are keeping bank accounts in Chicago, and are finding it most convenient to do a large part of the financial business of their operations through Chicago banks.

¶ The picture of Chicago as a consuming center is even brighter than that as a distributing point. The tremendous development that has taken place recently in the Chicago Metropolitan District is reflected in the increased use of lumber. In 1921 we consumed only slightly over one billion feet. Each year since then shows a remarkable increase. We passed the two billions mark by 200 millions in 1926 and by 400 millions in 1927, reaching the tremendous total of two and one-half billions last year in spite of a falling off in the general construction program.

¶ We can congratulate ourselves that Chicago still is the largest wholesale and retail receiving and distributing base for lumber, largest in the United States and in the World.

MERCHANDISE MART WILL BE THE WORLD'S LARGEST BUILDING

By

CLAUDE A. WELLES

General Manager

¶ "Colossus of marketplaces" is a term that appropriately describes a structure that will be the world's largest building, the Merchandise Mart, being erected in Chicago, at the crossroads of American commerce. It is intended, for the purpose of general merchandising, to simplify wholesale buying and selling and to foster broader and better inter-industry co-operation through centralization of efforts.

¶ The main facade of this mammoth structure faces the Chicago River and Wacker Drive, with eighteen floors and a six-story central tower. The building extends two blocks east and west, between North Wells and Orleans Streets, on a rhomboidal slant along the latter to Kinzie Street. Its riverside front measures 577 feet. Due to the oblique angle of the western end, the Kinzie Street length is 724 feet. The Merchandise Mart is an air-rights development built over the tracks of the Chicago & North Western Railroad. This mighty monument of steel, concrete and stone rests upon 458 reinforced concrete caissons with truncated-cone spreading bases reaching down eighty to one hundred feet below the street level. This number of caissons is more than twice the number ever before utilized in the foundation of a building. The Mart comprises approximately 4,000,000 square feet of floor space, or about 200,000 square feet to each floor. The use of sales and display quarters along its 650-foot corridors will permit a practical merging of the progressive functions of entire mercantile industries. Thus is put into the hands of manufacturers, distributors and importers of goods of kindred nature an opportunity to solidify their internal relationship, to deal on a more economical basis with their merchant customers, and to receive the manifold benefits of a decidedly new factor in commercial endeavor.

¶ The Merchandise Mart will establish a comprehensive exposition of manufacturers' wares within the easy reach of the average buyer, saving him several hours' time in travel, and considerable expense. Spaces for display-rooms, sales-rooms and for flexible storage are to be arranged scientifically, always with a view to the most practical concentration of goods. The third to eighteenth floors, inclusive, will be devoted to merchandise showrooms and sales offices. The building's largest tenant, Marshall Field & Company (Wholesale) will occupy the entire third to sixth floors, inclusive.

¶ The lobby floor is to provide all the modern time-saving and convenience requisites, such as a buyers' service department where the visitor may obtain directions for his trip in the building; bank, restaurant, barber shop, cigar and news stands, telegraph offices, telephones, branch postoffice, drug store, etc. On the second floor will be the exhibition halls to be used for temporary exhibits, fashion

shows and special displays of the Mart's tenants. In the tower, on the twentieth to twenty-third floors, inclusive, is to be the Merchants' Club, with complete facilities for the accommodation of visiting retailers. On the twenty-fourth and topmost floor will be found the convention hall.

¶ In the tower of the Mart building the National Broadcasting Company is to install the largest radio-broadcast station in the world. There will be six studios, all equipped with the latest devices to meet their needs. Studio "A" will be the largest radio theater in the world. It will be seventy-five feet long, fifty-one feet wide, with a total floor space of 3,820 square feet, and a total content of 99,450 cubic feet. The studio will have numerous innovations in equipment. Instead of the usual drapes utilized in the regulating of acoustical effects, it will be walled with adjustable narrow panels.

¶ The other studios will vary in dimensions, to meet acoustical requirements. The total floor space devoted to the six broadcasting rooms will be 10,228 square feet, and total content will be 265,928 cubic feet. Each studio will have a soundproof, glass-enclosed balcony, to enable invited guests to see the performers in the studio and hear through loud speakers as radio audiences hear them All the studios except "F" will be on the nineteenth floor of the Mart, and will be two stories in height.

¶ On the same floor will be the offices of the division engineer, plant and operating engineers, control boards, music library, musicians' rest rooms and lockers, reception rooms, announcers' rooms and lockers, artists' reception rooms, quarters for the library staff and engineering laboratory. From observation rooms on the twentieth floor, visitors will be afforded a view of the performances in the studios.

¶ Perhaps no other location on earth would have been better suited to a structure of the uses and importance of the Merchandise Mart. It will accommodate thousands of wholesale sellers of every kind and variety of goods known as general merchandise, each in his separate or co-operative sales and display rooms. A merchant buyer will be enabled to do all his shopping in the showrooms along one corridor. The immense savings this will bring to stores, not to mention the tenants of this great central market, are not computable. That the Merchandise Mart effects to a major degree for America's merchants "less time buying, more time selling," is foreseen.

PRINTING INDUSTRY

By

WILLIAM V. KELLEY

Chairman of the Board of Directors
Miehle Printing Press and Manufacturing Company

¶ Printing has been the recording medium of the great drama of life. It is more than an industry. It is an art—a calling—a service. Its history, since Gutenburg, has shown its wonderful stabilizing powers. Whether during the turmoil of political upheavals, wars and civil revolutions or in times of peace and plenty, it has maintained an astounding equilibrium when compared with any of the other trades, arts, sciences and crafts. Since printing, as the register of recorded thought, was unleashed to the four quarters of the globe, it has not only kept pace with progress but has been an accelerator. It is reasonable to believe that it always will represent the most important nerve centers in the progress of humanity and civilization.

¶ The relation of each operation in the making of a book, catalogue, leaflet or newspaper is of highest importance. Each step, from the conception of the idea to the printing, is handled in various departments—departments which in many printing establishments of the present day are of such magnitude that it sometimes happens that those engaged in a department may not fully realize the significance of their vocation.

¶ Chicago may well be proud of its many large printing establishments, which operate with the most modern equipment and are capable of producing every kind of printing known to the craft. Including publishing houses, these institutions constitute a most important part in the industrial life of Chicago, ranking first among the leading industries in the number of establishments, the number of wage earners, and the amount of wages paid to those employed in the industry. The value of the various products ranks second. The growth of the printing industry in Chicago has been steady and in keeping with the growth and progress of the city, which is only natural because printing depicts the entire story of the countless number of products manufactured in and distributed from Chicago.

¶ Probably the greatest volume of printing produced in Chicago is for its mammoth mail-order houses, whose work requires many hundreds of carloads of paper *per annum*, and whose expenditures for printed matter amount to millions of dollars. Chicago is a great publishing center for national magazines, trade papers and directories, and is constantly growing in this respect, due to its unusual distributing facilities as well as the fact that its location is most favorable to the large paper mills in the neighboring states of Michigan, Wisconsin and Ohio. Railroads require great volumes of printing, such as tariffs, tickets, circulars, forms, etc. The printing done for banking institutions is tremendous—consisting of stocks, bonds, checks and miscellaneous items. Chicago's great department stores use much printing in the form of advertising, "sales slips" and inter-department forms. The city's many manufacturers require booklets, catalogues, "broadsides" and office stationery in great quantities. Many millions of books are produced each year, such as text books for schools, books of a scientific nature and books of fiction.

¶ Chicago is one of the world's important printing-press manufacturing centers. The press manufactured in Chicago by the Goss Printing Press Company is used extensively for the printing of newspapers and magazines. The Miehle Printing Press and Manufacturing Company, also in Chicago, manufactures the world-renowned Miehle presses, ranging from small, high-speed "automatics" to large multi-color machines. These machines are used for the production of fine color work, catalogues, booklets, magazines and other classes of printing. They are used extensively by leading printers everywhere, and can be found in the printing departments of practically every civilized country on the globe. The printing industry in Chicago will grow. It will keep pace with other industries and with the city itself, because it has all facilities close at hand.

The Gold Coast District Where Are Many of Chicago's Finest Residential Hotels

HOTELS HELP MAKE CITY ATTRACTIVE TO VISITORS

By
J. K. BLATCHFORD
Secretary of Chicago Hotel Association

¶ The Federal Government stated in a brochure published by the Bureau of Education, Department of the Interior, that "Chicago is the most satisfactory meeting place offered for conventions of the supervising educators of the Nation." There probably is scant disposition to be found questioning the authoritativeness of that assertion. The Bureau of Education might have gone a step further, without compromising its accuracy, by adding that Chicago is the most satisfactory meeting place for *any other* national convention. But, of course, the Bureau was concerned with the subject only as bearing on affairs falling within the scope of its official jurisdiction. So, let's be grateful for the statement as it was issued, with its implied recommendation of hotel facilities—a major factor in the entertaining of convention visitors.

¶ Local history reveals that the first building structure to be used for the accommodation of transient guests in the Fort Dearborn settlement was known as the Wolf Point Inn. It was built by James Kinzie, either in the year 1828 or 1829. Historians are in disagreement as to which year. However, it doesn't matter, inasmuch as they agree that the building was the first one to be so employed. But it was not intended for that use when it was erected; and was not especially well-appointed for the purpose to which it was put. When the owner decided to convert the small structure to the needs of a tavern, he arranged with Archibald Caldwell to conduct the establishment. Mr. Caldwell thereupon procured a license, issued by the authorities of Peoria county, within which the settlement was to situate, such document entitling him to "keep a tavern in Chicago." The license stipulated that Caldwell was to pay a tax of eight dollars, and to post a bond with security to the amount of $100. That institution got a start on the other local caravansaries as a "going concern," but a few others soon were under way.

¶ Mark Beaubien, a resourceful pioneer of French descent, built the first edifice primarily designed for hotel purposes. It was erected in 1829, on a site near what now is the intersection of West Lake and North Market Streets. The first designation it bore was Eagle Exchange. Prosperity attended that enterprise to such a degree that Garcon Beaubien decided upon a policy of expansion. He enlarged the building, "dolled it up," and rechristened it as the Sauganash Inn. That name was selected in honor of "Billy" Caldwell, an Indian chieftain whose tribal name was Sauganash. Caldwell was the son of a dashing military officer of Irish descent, who had wooed an attractive Indian girl of the Pottawatomie tribe. Their half-breed offspring in the person of "Billy" won the affection of the white settlers by befriending them at the time of the Fort Dearborn Massacre. The Sauganash Inn was duly licensed, in 1831, and opened its doors to the public. The structure stood two stories in height, with its exterior walls painted white

The Stevens and the Blackstone Hotels on Michigan Avenue

and its window "blinds" painted a shade of bright blue. Both the dimensions and the decorations distinguished it conspicuously from the other structures nearby. Its tap-room became noted, if not notorious; and the convivialities long conducted therein doubtless contributed much towards alleviating those discouragements attendant upon the many hardships endured by its pioneering patrons. When Chicago was incorporated as a village, in 1833, the first meeting of its trustees was held in "the Sauganash." Besides being its landlord, Mark Beaubien was a fiddler of sufficient skill with the bow to scrape out familiar tunes to stimulate the dancing that was a part of the tap-room's attractions. As a "side-line," he had taken out a license to operate a ferry boat across the river. His multiple duties appear to have overworked him, for it is recorded that at one period he was spending more time at fiddling for the dancers than at winding the windlass for passengers of the ferry transport system. The passengers registered a vigorous "kick," and threats to revoke his transport license were uttered. The county commissioners summoned Mark into their presence, and ordered him to keep the ferry boat in operation from daybreak to nightfall. Thereafter, it is further recorded, there was less devotion to Terpsichore, within the tap-room—but a gratifying improvement in over-stream transportation on the river. Later on, the Sauganash Inn was taken over by John Murphy, who enjoyed much prosperity during his tenancy there. In 1837, Murphy opened a hotel of his own, leaving "the Sauganash" without any tenant "host." An enterprising firm of pioneer promoters turned the tap-room into a theater, the first one in Chicago. It had benches that accommodated 300 spectators—when they "crowded close." The building was destroyed by fire in 1851. On its site was built later the famous "Wigwam," in which Abraham Lincoln was nominated for the presidency of the United States. Kaskaskia chapter of the society of Daughters of the American Revolution marked the site, in 1926, with an appropriate tablet.

Colonnade and Staircase in Stevens Hotel

¶ Tact impels me to leave it for someone possessing a finer sense of discrimination than is mine, to genealogize on the known facts and then inform us which of those two early establishments (Wolf Point Inn or Eagle Exchange) was the "great-great-grand-daddy" of the many hotels in the Chicago of our own time. It has been a prolific family tree that grew from the pioneer days of 1829. That word "tree" reminds me of another historic hostelry wherein soldiers, trappers, surveyors, traders, explorers and other venturesome travelers found temporary accommodations. It was the Green Tree Tavern, built by James Kinzie, in 1833. That time, James did build for hotel purposes. His new tavern stood near the present intersection of West Lake and North Canal streets. It derived its designation from a solitary, but thriving, oak tree that stood nearby.

¶ It appears that Chicago took an early start as a "convention city," when the River and Harbor Convention assembled here in 1847. Historians don't tell us whether or not it was the hotel facilities then to be found here that determined the selection of a meeting place. Let's give the pioneer taverns the credit for it, anyway. It can't do any harm to assume that their "landlords" maintained hostelries of which good repute had gone forth to the world—even though there was no federal Bureau of Education to contribute its official aid in bringing conventions here.

¶ At the time of the World's Fair of 1893 there were about fifty hotels. Since that time the number of new ones built is almost beyond belief.

¶ The only hotels of any importance that discontinued business during the past two decades were the Grand Pacific, Stratford, Wellington and the old Victoria on Michigan Avenue—their total of rooms aggregating not more than 800. New central hotels or enlargements during that period are the Blackstone, La Salle, Sherman, Fort Dearborn, Morrison, Planters', Brevoort, Atlantic, Lorraine, Palmer House, Bismarck and the Stevens. From this it will be seen that the net increase in rooms in the down-town district, during the past twenty years, amounts to nearly 10,000 rooms.

¶ Twenty years ago, there were very few hotels north of the river. The Virginia, the Plaza and a few American-plan hotels comprised the entire list. Today, a number of the large north-side hotels cater not only to families, but during the summer are patronized by thousands of tourists from all parts of the country, chiefly from the South. Among the large and fine hotels of the north side, built during the past two decades, are the Drake, Edgewater Beach, Ambassador, Sovereign, Belmont, Belmont-Stratford, Lake Shore Drive, Pearson, Parkway, Sheridan-Plaza, Surf and Webster, the total aggregating about 7,000 rooms. It is estimated that residential and apartment hotels not included in the above list, several of them receiving transient guests, have a total of 12,000 rooms. So the north side has acquired nearly 20,000 hotel rooms during the past twenty years.

¶ New hotel structures on the south side, built in the past few years and within fifteen minutes' ride from "the Loop," include the Chicago Beach Hotel, Windermere, Cooper-Carlton, Shoreland, Flamingo, East End Park Hotel, Hayes and Southmoor. Over 15,000 hotel rooms can be found on the south side and about 2,000 on the west side.

¶ From a single tavern, in 1828, to nearly three hundred transient and residential hostelries, in 1929, is without a parallel in the history of hotel development in any city. But that's the way we do things here in Chicago—always building "bigger and better."

REAL ESTATE IS THE CITY'S UNDERLYING SUBSTANCE

By

FREDERICK M. BABCOCK

Evaluator
William H. Babcock and Sons

¶ Chicago has played a major part in the real-estate drama of America. It has invented and devised new and modified uses for urban land, and by eminent example has led the way toward a logical and more intensive utilization of city soil. Here was invented the steel-frame office building. Chicago organized its earlier industrial districts and factory communities. It led the way in major public improvements and city planning, and demonstrated the feasibility of rehabilitating poorly-improved districts. Chicago was the first city to double deck a downtown thoroughfare.

¶ In every "young" city, real-estate activity experiences successive booms in which fortunes are made in speculation, alternating with periods of collapse in which fortunes are lost. This has marked the real-estate history of Chicago. The rapid growth of population which gave early Chicago a series of booms finally has given our city the requisite magnitude and stability to place its real estate within the class of investments not characterized by violent fluctuation.

¶ Chicago stands not only as the resourceful inventor of many methods of efficient land utilization, but as an exemplar of the most advanced technique in the use of urban sites. The city boasts a number of building structures which are the largest of their kind—the largest hotel, the largest mail-order building, the Furniture Mart (at present the world's largest edifice), and the new Merchandise Mart (still under process of construction) which will surpass the Furniture Mart in dimensions.

¶ But the most notable examples of wise and productive land utilization are not necessarily those characterized by size. The "layout" of modern office space, storage garage innovations, unique store fronts, and various expedient schemes illustrate the refinement and technique in real-estate development in modern Chicago. The untechnical observer views the skyline from the lake front and is impressed by the pleasing architectural ensemble presented by Chicago's towers. The technician sees not only the majestic masses, but in addition he appreciates the economic qualities found in corridor widths, window shapes and rapid elevator levelers. Progress in the development of those important factors has been accompanied by an increasing appreciation of the commercial value of beauty in real-estate development. The Tribune Tower, while located on what once would have been described as "the wrong side of the river and the wrong side of the street," was rented readily at rates equivalent to those paid in the finest of the more centrally located structures. Chicago office tenants will now pay handsomely for beauty in their business quarters.

¶ The development of the downtown area of Chicago had not been expansive since the World's Fair in 1893, until the most recent construction period, when modern structures rose near the Michigan Avenue bridge. By the year 1890, the general area that was to be occupied by the downtown district had been roughly outlined. Originally, the principal business thoroughfare had been Lake Street,

WM. D KERFOOT IS LEANING AGAINST THE LEFT RAILING, SAM ASHTON IS WEARING THE "TOPPER"

THE FIRST BUILDING ERECTED IN THE BURNT DISTRICT AFTER THE GREAT CHICAGO FIRE, OCT. 9, 1871

from State Street to Franklin; and the intersection of Clark and Lake Streets was considered the principal "corners" as late as 1880, when the "center" commenced its southward progress.

¶ What was true of the central district was true also of outlying real-estate development. In 1870 there was subdivision activity as far south as the Blue Island ridge, as far west as Hinsdale and as far north as Lake Forest. The general outlines of future districts in outlying territories were almost completed by 1885, and since that time development has been intensive to a much greater degree than it has been expansive.

¶ After embarking upon the Chicago Plan in 1909, the great public improvements commenced. In a few more years there will have been a total of $1,000,000,000 spent in public improvements. But in this connection let us bear in mind that real estate is the private land and improvements, to the exclusion of those lands and buildings owned as public possessions. While the vast developments of public properties were taking place, real estate kept pace with those stages of progress. New forms of enterprise appeared from year to year, to offer not only attractive investments but better housing for families and business.

¶ When Wm. D. Kerfoot and Co. erected an office (the first new structure in the burnt-over downtown area, in 1872) they were the first "operators" to engage in real-estate development over a period of slightly more than a decade during which the city was allowed to build under the deplorable policy of *laissez faire*. However, in 1883, the new Chicago Real Estate Board, in the first year of

its existence, was instrumental in causing an ordinance to be enacted "prohibiting the erection of livery stables, blacksmith shops, or foundries in residence districts, without the consent of owners." That action was to foreshadow a long series of regulatory measures to control the private development of property. Today Chicago is growing under the favorable influence of a well-balanced building code and a zoning system which had its origin in this city. It is considered to be only a matter of time before public spirit will demand that a system of control be exercised over the esthetic features of buildings.

¶ The very character of much local real estate has changed gradually during the last fifty years. There was a time when retail shopping districts were on certain streets, with successful merchants ranged along both sides for a number of blocks. Today, the automobile has a tendency to make retail districts into islands; and in some cases the four sides of a block have so developed, rather than a long section of one street. Automobiles have had a tendency to destroy some of the retail value at street-car intersections, and to spread the corresponding value into neighboring areas that afford more favorable parking facilities.

¶ The tendency toward change is discernible in residential accommodations. Where "home" once served only to indicate a single family dwelling, it now serves in many cases as the designation for a small accessory-laden, electric-refrigerated "cell," many levels above the street turmoil. The rubber plant which once occupied a bay window in a stone-fronted house has given way to an eight-tube "radio." Fewer citizens own the furnishings in their homes than was once the case.

¶ Many writers have entertained the reader with comparisons between land values in the early village of Chicago and the present-day values. They usually refer to the "brief period" of eighty or ninety years in which vast increments have accumulated. But let's look further. A corner lot at the intersection of Lake and La Salle Streets sold in 1831 for $33.33, and would today be valued at some figure between $1,000,000 and $1,250,000. It is equally significant to point out that the same lot was sold in 1837 for $80,000, which amount would have accumulated if at five per cent compound interest during the ninety-two-year period, to more than $7,100.000. The rapid increases disclosed when comparatively raw land is found capable of a valuable use, form the basis for land speculations; but land devoted to established uses rarely has warranted continuous ownership without building improvements. Nevertheless, the comparisons are interesting; and it is amusing to know that the site of the Palmer House was purchased in 1866 for $1.50 per square foot, and that the whole south half of the present downtown area brought but $6.72 per acre in an auction held in 1833. But as most of the purchasers appeared in the delinquent tax lists in 1837, we are enabled to perceive that real-estate operations in the early period of Chicago's history were of a hazardous character. Land deals and horse trades were in the same category.

¶ That youthful Chicago did "overdo" was but a symbol of its youth. In each construction period, an oversupply of the various classes of structures has taken place. "Overbuilding" has been a normal and typical condition in Chicago, rather than abnormal. We are very much "overbuilt" today, in practically all classes of structures; but it is no new condition. In 1833, 1870, 1885, 1890, 1901, 1911, and 1923 there were periods begun of intensive construction—veritable bursts of activity which built the city. At each of these stages, there were those who shouted "Desist!" But the optimists habitually overbuilt—and then suffered an era of retrenching and adjustment.

¶ Surges of over-expansion are surface waves concealing the great body of sound development underneath. Chicago junks the old and obsolete; then replaces it with the new and adequate. The excellent building erected at the southwest corner of Madison and Dearborn Streets in 1872 was wrenched down in 1892 to make way for the Hartford Building. Today, but thirty-seven years later, the Hartford still stands, but it would not contribute materially to the price if the site were sold. Many of its fellows long since have become almost forgotten names—the Montauk, Tacoma, Chamber of Commerce, Woman's Temple, Gaff, Counselman and others.

The Estate of Secretary of Commerce Robert P. Lamont in Lake Forest

¶ The changes in real estate which have brought about this rapid junking of buildings cannot be dismissed by simply saying "the land has risen in value." It has; but the rise is a symptom. Real-estate promoters, realtors and investors have studied out devices to produce greater earning capacity, and by co-operation with the architects have developed building designs of greater economic power. Outside "grand staircases" disappeared. Stores came up, out of the basements, to street grade. Framing and spanning made more adaptable room sizes. Ornamental, interior "light wells" gave way to bright, outdoor courts. High-speed elevators (some lately planned with two cabs in a single shaft) carried the buildings to the very skies. Only the law prevents the erection of buildings twice the height of our newest structures.

¶ The raw material out of which the real estate of a city is made comprises more than land. In fact, land (although essential) may be considered as an ingredient of negligible importance. Chicago has forever passed the stage of realty development in which "flyers" and speculations in raw land constitute the most remunerative real-estate activity. As the outer boundaries of the city expand, the area of raw farm land available for subdivision use decreases in proportion with the urban population. This geometric factor is more than offset by the vastness of the areas which can be served by rapid-transit facilities, including the automobile. More land usually is available for subdivision purposes than the market for subdivision lots actually justifies.

¶ There is perhaps no more noticeable change in the Chicago real-estate field of today than

the gradual shift from an interest in the purely speculative aspects of realty to an appreciation of the investment phase of real estate. The past situation was one in which most purchasers bought lots and waited for local changes in the use of nearby land to enhance their holdings. Now there is a much more widespread interest in improved property having an earning power, and in various forms of real-estate securities. The more recent forms of real-estate financing have placed at the disposal of investors the opportunity to share in a smaller way in large units of realty development.

¶ The whole system of financing real estate by the sale of securities has undergone a severe test during the last few years, and it is interesting to know that this city has produced an imposing list of real-estate securities which are exceptionally sound. Chicago has done more than any other city to develop a modern technique of valuation and real-estate analysis. The supplanting of sole reliance upon opinion and guess work will minimize the misplacement of capital in unsound real-estate enterprises hereafter. It is not at all unlikely that Chicago will continue to lead in the refinement of valuation technique and in the study of real-estate economics.

¶ A joker said of Chicago, "It will be a great city when they get it finished." It is quite significant that there has been a change in the general conception as to the permanence of buildings. The earlier construction was "shirt-fronted." Blank walls facing neighboring low buildings were the rule. There seemed to be absolute faith that but a few more years would see all side walls concealed. The blank side wall is no longer sanctioned. Man no longer places faith in his neighbor's intention to build soon. Men know now that such a city never could be finished. Therefore, they finish each building so that it can be a typical product of its time—to stand as an asset to the city and owner, but inevitably to come to the end of its economic life in a future period of real-estate marvels not at present conceivable. Some of our greatest new buildings will stand for a century; but the vast majority are known to have only a generation of service in prospect. Real estate builds better today than ever before, but it no longer builds toward a "finished" Chicago. The "finishing process" is infinite. But we know that we've at least given it a good start.

1933

THE CENTURY OF PROGRESS CENTENNIAL CELEBRATION

By
RUFUS C. DAWES
President
Administrative Corporation in Charge of Plans for this Second World's Fair

¶ In 1833 Chicago received its charter as an incorporated village. Whoever reads the story of its century of existence and sees in this pleasing book the photographic reproductions of its imposing architecture, expansive parks and crowded boulevards, will realize that Chicago should have a centennial celebration and that this celebration will be unique.

¶ In 1893 Chicago, then with a population of 1,100,000, and just beginning to take on metropolitan dignity, assumed to present a World's Fair in commemoration of the four hundredth anniversary of the discovery of America. The manner in which this was achieved aroused the admiration of the world. There were found in Chicago men of such sense of proportion and artistic fitness that on every side their effort was acclaimed as being suitable to and worthy of the memorable event it celebrated.

¶ That success has become the pride of Chicago, and its inspiration toward great achievements of beauty in building, activity in business and in the development of museums of art and archæology, and of institutions of commanding influence in religious and educational work. Thereby the Chicago spirit was fortified and stimulated. There has been and there could be no holding back from the celebration of its hundredth birthday, but there has been and there ought to be much doubt and uncertainty as to the nature of that celebration. There is a feeling that in size and beauty of setting it ought to be similar to the World's Columbian Exposition; that like that first World's Fair, it ought to include displays of art, programs of music, novel and fascinating features of pastime and entertainment; and that it ought to be held along the shores of Lake Michigan, where the charm of contrast between land and water would delight our visitors.

¶ But there still survives in Chicago enough of that good taste which produced such a vision of beauty and stimulation to worthy effort as the Columbian Exposition, to condemn emphatically the thought of reproducing in every respect that memorable achievement.

¶ The central thought of the Columbian Exposition of 1893 was to present a display of the progress of industry and of the advancement of civilization in this Continent over a period of four hundred years. This aim was accomplished by inviting manufacturers of all sorts of commodities to display their products in competition for prizes to be awarded. It was the only method conceived of at that time by which industrial progress could be made clear; and though it was bewildering and tiresome, it did prove to be interesting to the visitors to that Fair. The repetition of this method of display in other expositions has resulted in the diminution of interest in such shows until now there is no longer any interest in them.

¶ The increase in the habit of traveling and of reading, and the introduction of moving pictures and automobiles have completely changed the taste and interests of the people

The German Building Erected by That Country for the World's Fair of 1893

State Street as It Appeared During the World's Fair Celebration

in this respect. They revolt at the thought of dragging weary feet past literally hundreds of miles of counters in which the products of industry are displayed. The great department stores could hardly be surpassed in skill and artistry of making such displays. There would be nothing to be gained by duplicating the attractions of a department store at a World's Fair which has no goods to sell. But there may be something to be gained in making a display of industry for the purpose of explaining how since the World's Fair of 1893 we have learned to light our cities, to carry power to the farms, to fly through the air, to ride in automobiles, to throw our voices over thousands of miles of space, and to make silk out of cornstalks.

¶ It is inevitable that in a period of such extraordinary changes there should be alterations in the methods of displaying the progress of industry. But the main purpose of an exposition, which is to recall the past in order to direct the future, may perhaps be more easy of accomplishment by arranging the displays in such a manner as to obviate weariness, arouse interest and stimulate thought. The effort that is being made by the Trustees of the Century of Progress celebration is to have the exhibits of industry made collectively by those engaged in them, with the special thought of acknowledging their debts to science. To accomplish this design they are calling to their assistance groups of men distinguished for their achievements in advancing industry by the use

World's Fair Buildings—1893

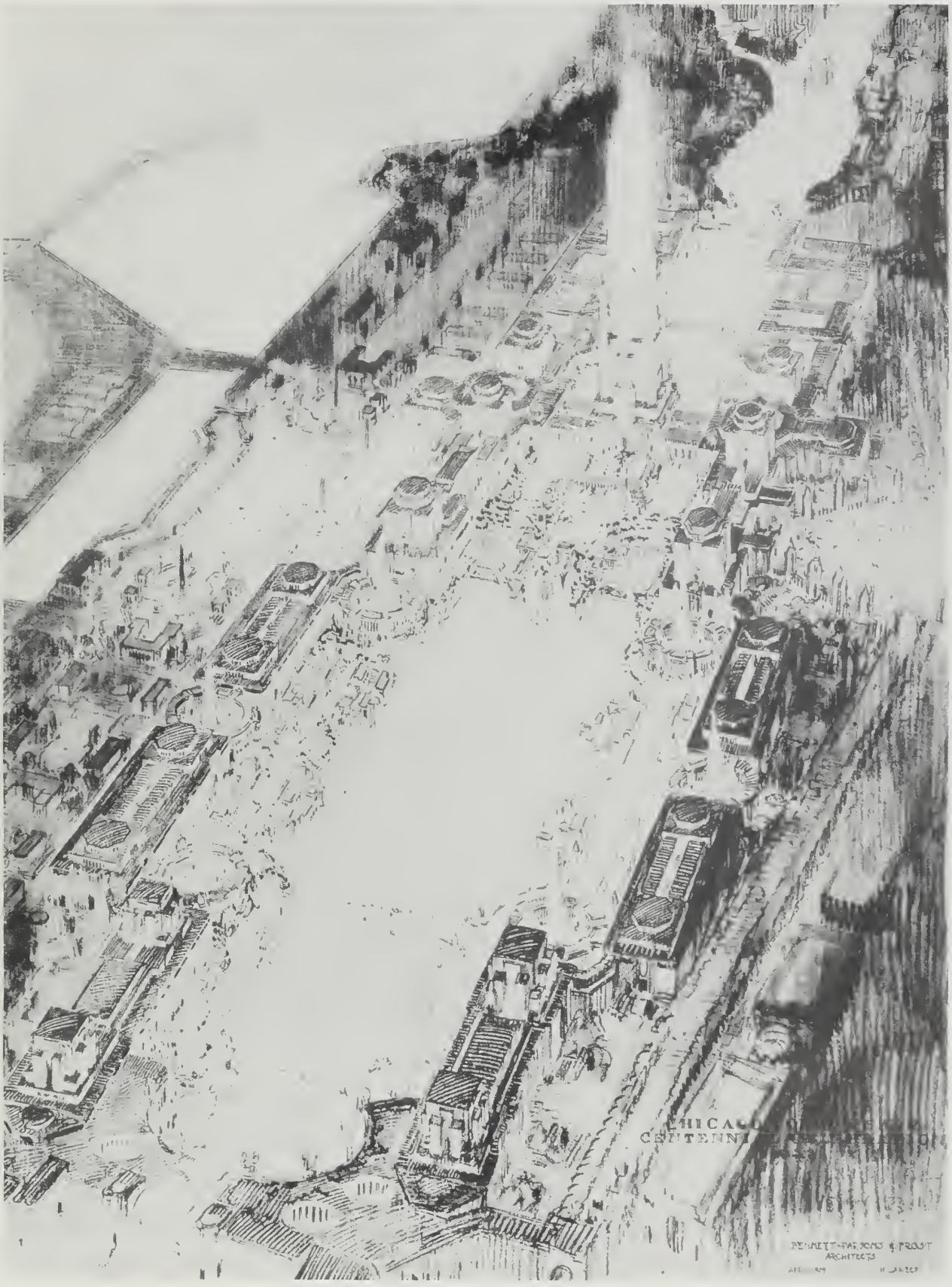
of science. These eminent men approve the effort and will direct it.

¶ "Competition is the life of trade"; and in 1893 that competition was keen between members of the same industry. Today the members of almost every industry have bound themselves together in associations for co-operation against foreign competitors and against new industries that may prepare to displace the old ones by better service. Since 1893 such important new industries as automobile manufacturing, moving pictures, aeroplanes, radios, to a large extent telephones, and to a greater extent the manufacture and sale of electric current, and the great chemical industries, have appeared and so entrenched themselves as to provide support for at least one third of our entire population. These in themselves show the great service to humanity that has been rendered by science; but other industries also have received a similar benefit and have thereby been enabled to continue their useful activity.

¶ During the greater part of the period since 1893, it has been everywhere recognized that science was the source from which these great advances have come, and that the power of nations in commerce and industry is greatly to be strengthened by arranging for and encouraging the immediate use by industry of the latest discoveries of science. Our great corporations have very generally established research departments. The total annual expenditures for scientific research now amounts to more than three hundred million dollars and is constantly increasing. The modern spirit in industry throughout the world is cooperation by the members of each industry in the application of scientific knowledge for the improvement of its service. This is the spirit which will prevail in the Exposition of a Century of Progress in celebration of Chicago's one hundredth birthday. The close organizations of nearly all the industries into associations for cooperation ought to make it possible for each of them to present a display of its proc-

esses and products made collectively in such a manner as to disclose its scientific genealogy and to make clear its services to society and its opportunity for enlarging that service.

¶ It is fitting that such an effort should be made in Chicago. Here we have the typical modern city, the only great city founded at the beginning of this marvelous Century of Progress due to the extension of human knowledge and the growing power of man to use for his own service the forces of nature. It was about the time that Chicago was founded that there began those great discoveries of natural laws which have been used for man's convenience. Then was the very beginning of the use of steam, man's greatest victory in his struggle with nature. Since then electricity has been developed and all the great discoveries of chemistry have added their part in continuing the conquest of nature. By these methods distance has been conquered in communication, and almost conquered in transportation. Within this hundred years all the conditions of human living have been altered; and now that this city, the product of these influences, has reached its centenary, these victories deserve a triumphant celebration.



ARCHITECT'S CONCEPTION FOR CENTURY OF PROGRESS CELEBRATION
LAKE FRONT—SOUTH OF GRANT PARK

SKARA

GREATEST RAIL-TRANSPORT SYSTEM CENTERED IN CHICAGO

By

FRED W. SARGENT

President

Chicago and Northwestern Railway Company

¶ From a town of less than thirty thousand in 1848, dependent upon river, wagon-road and lake for transportation, to the greatest railroad center in the world—that is Chicago's progress in eighty years. North, south, east and west, the steel web of our railways extends from this hub to Canada and the Gulf of Mexico, to the Atlantic and the Pacific. Trunk lines to the east and south, transcontinental roads to the west, shorter railways, industrial and switching roads—all are here to minister to the nation's needs. Here is the center of the world's greatest transportation system.

¶ Almost twoscore steel voices answer "Here" when the roll of Chicago's steam lines is called. "Any place, and time" comes fairly close to holding true of Chicago's railroads, with their daily average total of fifteen hundred inbound and outbound passenger trains. One thousand five hundred passenger trains every week day! Sixty-two trains an hour, on the average! Better than a train a minute! Fitting justification of the title of the world's greatest transportation center!

¶ Complete figures are not available regarding the total number of passengers brought into and carried out of Chicago by the steam railways in the course of a year. Interesting details are disclosed, however, in a recent report regarding Chicago's street traffic. This report contains a summary of a count which was made of the inbound and outbound railway passengers between seven o'clock in the morning and seven o'clock at night on an average week day in May, 1926. In these twelve hours on this day the steam railways serving Chicago brought in more than one hundred thousand suburban and almost sixteen thousand through passengers and took out ninety thousand suburban and fourteen thousand through passengers. This made a total of two hundred and twenty thousand passengers in twelve hours. More than fifty-four thousand passengers were handled between 7:30 A.M. and 8:30 A.M., and more than sixty-one thousand —or over one thousand a minute, on an average—were handled between five and six o'clock in the evening.

¶ Less showy but no less important than the passenger service is the freight service performed by Chicago's railroads. A very complete report on the freight traffic of the Chicago Terminal District has recently been published by the Committee on Co-ordination of Chicago Terminals. While the statistics in this report are several years old, they amply indicate the great importance of Chicago's freight business. First, let us see what Chicago's railway freight facilities are. The Chicago Terminal District is an irregular crescent, about forty miles in breadth at its widest point. The main line of the Elgin, Joliet & Eastern Railway (extending from Waukegan, Illinois, on the north, through Eola and Joliet, Illinois, on the west, to Porter, Indiana, on the east) forms the convex border of this crescent, while Lake Michigan to the east and north forms its concave border. The area of the territory embraced in the Chicago Terminal District is approximately 1,750 square miles. This area is greater than the gross land and water area of the state of Rhode Island (1,248 square miles) and almost as great as the entire land area of the state of Delaware (1,965

Chicago's First Railroad Station

square miles). This district loads about four and one-half per cent and unloads about six and one-quarter per cent of the country's total freight car loadings.

¶ The freight traffic of the Chicago Terminal District is handled by thirty-seven railroads, including twenty-two trunk line carriers, seven belt and switching lines, and eight industrial railroads. The District contains three thousand miles of main track and almost five thousand miles of yard track and sidings, a total of nearly eight thousand miles. There are more than two hundred freight terminal and industrial yards, with a capacity of over two hundred thousand cars. This District contains one hundred railroad freight-car repair yards with a total capacity of almost ten thousand cars. There are also some eighty engine houses, with a total of thirteen hundred stalls, and twelve locomotive repair shops having a total of nearly two hundred pits.

¶ As regards the facilities for receiving and delivering freight, first, 4,330 industries are served by private tracks. In addition, there are 255 freight houses and 372 public team yards. Of the freight houses, there are 53 inbound and outbound stations in the downtown zone. These 53 stations have a combined floor and platform area of more than two million square feet and a car capacity of more than three thousand cars. This floor and platform space, if in one unit at one level, would cover forty-nine acres of ground. For the storage of perishable products, these houses are equipped with coolers having a combined capacity of a quarter of a million cubic feet.

¶ There are seventeen transfer houses, all of which, except one, are located away from the downtown zone. The floor and platform area of these houses is six hundred thousand square feet, while their car capacity is two thousand cars. Then there are eleven universal freight stations, all located away from the downtown zone. The floor and platform area of these houses is three hundred thousand square feet, and their car capacity is around seven hundred cars. Finally, there are 174 substations, and outlying city, suburban and country way stations. The 372 public team yards have a total combined capacity of almost eleven thousand cars.

SKARA

Union Station Rotunda

The Proviso Yard Is the World's Largest Transfer Depot

¶ Adding the 4,330 industries served by private tracks, the 255 freight houses, and the 372 public team yards, it will be seen that there is a total of 4,957 points in the Chicago Terminal District to which cars are delivered for loading or unloading. In the language of the Co-ordination Committee's report: "Adding railroad coal chutes, cinder pits, etc., the number of points to which cars are delivered reaches well over five thousand—probably fifty-five hundred. Therefore, every local car handled is destined to one of more than five thousand delivery points. As most of the local traffic requires spotting service on a certain track, at a certain building, a certain platform, opposite a certain door or bin, it will be evident that these figures portray only inadequately the service required in the disposal of the local traffic."

¶ The daily volume of Chicago's freight traffic requires the movement of about thirty-five thousand freight cars, of which more than thirty thousand move in local traffic and between four and five thousand cars in through traffic. In other words, for each through car handled, seven local cars are handled. To avoid confusion and delays, the through traffic is not moved through congested city areas. Only nineteen through cars a day (those cars requiring special service, as a rule) are handled through the downtown zone, while ninety-three per cent of the through traffic is handled ten miles or farther from the downtown section of the city.

¶ The average daily number of inbound loaded freight cars is almost eight thousand, of outbound loaded freight cars almost five thousand, and of intra-terminal loaded freight cars between three and four thousand.

The Union Depot Serving Four Railroads

¶ Coal is the most important commodity in Chicago's inbound freight traffic, amounting to twenty-three hundred cars out of the daily total of around eight thousand. Next comes merchandise, to the extent of over nine hundred cars, followed by live stock with almost nine hundred cars, grain with between six and seven hundred cars, and perishables (consisting largely of fruits, vegetables and dairy products), with between five and six hundred cars. The remaining inbound loaded cars are classified as containing "other commodities" than those listed above. On the outbound side, merchandise takes the lead with almost two thousand cars. Second and third places are occupied by perishable goods (mainly packing-house products) and by live stock, with around five hundred and two hundred and fifty cars, respectively. The remaining outbound traffic, over twenty-one hundred cars, comes under the classification of "other commodities."

¶ So much for the present. But what about the past? How has Chicago's transportation leadership come to be? In the year 1830 the entire population of Illinois was 157,445. These early settlers were not only in doubt as to their future means of transportation, but the citizens of Chicago were further in doubt as to the ultimate destiny of their own village. At this time there was another rival for supremacy in the commercial field, and it was a matter of question for some time whether the harbor of Chicago would tend to develop this city into a greater business center than the lead mines would develop the village of Galena.

¶ The Galena & Chicago Union Railroad had been chartered in January, 1836, Galena's position as the leading village of the West being indicated by its precedence in the corporate name. The survey of the road was

begun in February, 1837, and was run due west to the Des Plaines River from the foot of north Dearborn Street. Work was discontinued in June of this year, to be resumed in the following year, when the enterprise again came to a standstill for a decade. With the suspension of operations on the Galena & Chicago Union, the people of the Rock River country offered several other suggestions whereby they might be brought into closer contact with Chicago and its increasing business activities. A plan was first urged for a plank road to be built from Chicago to the Rock River, at a cost of $300,000. Later, in 1843, a survey was made between Joliet and Aurora for a proposed canal to connect the Fox River with the Illinois and Michigan canal, the further suggestion being made that it would be possible to extend this facility to Rockford, but these schemes all came to nothing, and in 1846 the Galena & Chicago Union was revived.

¶ The common council of Chicago had refused to pass a proposed ordinance granting the Galena & Chicago Union a right-of-way from the West into the city. In spite of this fact, the contract for the first thirty-two miles of railway from Chicago was let in March, 1848. While the council had refused to permit the road to enter the city, it did grant the railway permission to build a temporary track east to the Chicago River so that a locomotive could be brought by water from the East to the head of the road. The first locomotive in Chicago, the "Pioneer," arrived on the brig "Buffalo" in October, 1848.

¶ In November, 1848, the "Pioneer" and six old freight cars, which comprised the entire rolling stock of the Galena & Chicago Union, were running daily on the ten miles of road completed west of Chicago, carrying labor and materials to proceed with the work. According to the historian Andreas: "On November 20, 1848, Chicago received the first wheat ever transported to it by rail. Upon the invitation of the Board of Directors a number of stockholders of the company and newspaper men took a flying trip over Chicago's system of railways then extending ten miles west to the Desplaines river. A couple of baggage wagons had been provided with seats and at about 4:00 P.M. the train bearing away about 100 persons removed from the foot of north Dearborn Street, where a crowd had collected to witness the novel spectacle. On the return trip a load of wheat was transferred from a farmer's wagon to one of the cars, and this was the first grain transported by rail to Chicago. This fact soon became known to the farmers living west and the Company made arrangements to accommodate the expected increase of their business. They at once placed covered cars upon the track and about a week after the line was opened to travel the business men of Chicago were electrified by the announcement that over thirty loads of wheat were at the Desplaines river waiting to be transported to the city."

¶ From this beginning, with ten miles of railroad and prospective traffic of thirty carloads of wheat in 1848, there has grown in fourscore years the greatest transportation center in the world.

MANY MOTOR-BUS ROUTES RADIATE FROM CHICAGO

By
ORVILLE S. CAESAR
President
Motor Transit Management Company

¶ There was a time when a city considered itself in the most advantageous position if it were situated where rail and water meet. In this day of newer transportation, a city is advantageously situated if it has been built where highways converge. The highways of the nation radiate from Chicago; and the existence of these highways is fundamental to the development of motor-bus transportation. Chicago is headquarters for the largest inter-city motor-bus organization in the world. People may reach Chicago from the Atlantic Coast and they may buy a ticket on the Pacific Coast for this mid-western metropolis. The traveler may board a bus in Florida or in New Orleans with Chicago as the objective. At almost any point in the nation bus transportation to Chicago may be purchased. Whether those who travel come from a long or a short distance, the value of the motor bus to the commercial interests of Chicago is beyond question. Chicago is also the business center for the motor-bus industry, where there are to be found the general offices of lines in which millions of dollars have been invested.

¶ The last quarter of a century has seen a tremendous development in highway transportation. The first automobile was derided. Today, there are over twenty-four million of them in service in the United States. Approximately twenty billion dollars have been invested in the highway system. During the past few years, motor-bus transportation has seen a large and surprising growth. Highways have made new centers of trade and have established new arteries of communication. The public highways have reconstructed the map of transportation. The automobile has set new standards in travel. The motor bus is but the commercial manifestation of the new forms and the new ideals in travel. It offers transportation facilities on the new arteries of trade which modern transportation has created.

¶ Although comparatively new, motor-bus transportation has grown away from its early crudeness and uncertainty, to a position of prime importance. It is the only form of commercial transportation by land which has witnessed a growth in the past ten years. Rail transportation by steam and electric power has shown a decline that has been constant and consistent, year by year. While this form of transportation has declined, motor-bus travel has increased. Its growth has not only been consistent but spectacular. Today, in the United States, over forty-five thousand buses are engaged in commercial service. These buses represent an investment of hundreds of millions of dollars. They travel over nearly three hundred thousand miles of highway. The number of passengers carried in inter-city service totals over three hundred twenty-five million annually. But a form of transportation should not be measured merely by its past. The recent years in bus transportation have been those of development. It has been necessary to build a vehicle which will give safe transportation on scheduled time. It has been necessary to build organizations and train the men to operate motor buses. Capital has been necessary. The past has been an indication as to the future; and in the years to come, motor-bus transportation will improve and expand to points even far beyond the comprehension of those within the industry.

¶ Chicago is proud of its parks and boulevards. Travelers who arrive in the city by motor bus ride through those parks and over those boulevards. The motor-bus traveler comes into Chicago by the front door, as it were. Chicago's welcome to the visitor is the attractive welcome of the most pleasant features of a great city.

OVER-SEAS TRANSPORTATION AS IT PERTAINS TO THE FUTURE OF CHICAGO

By

EDWARD N. HURLEY

Former Chairman of Federal Trade Commission
Wartime Chairman of United States Shipping Board.

¶ Chicago's intimate relation to over-seas transportation has been obscured ever since the birth of the city by its position on the map and by the fact that the federal statistics of exports and imports do not refer to the real origin of exports or to the ultimate destination of imports. As a matter of fact Chicago has been one of the greatest contributors of over-seas trade ever since the first packer, Gurdon S. Hubbard, learned the trick of packing many bushels of corn into the body of a pig and then shipping the salted carcass over-seas so that European factory folk might eat the produce of the rich soil of the central west.

¶ When President Hoover was Secretary of Commerce, he said that fifty percent of the foreign trade of the United States should be credited to the Chicago district because of its population and the number and size of its industries. According to the Federal Reserve bulletin, the Chicago district comprises Illinois, Iowa, Indiana, Michigan and Wisconsin. The exports from this district are of the most varied character, comprising agricultural products, steel, automobiles, harvesting machinery, packing-house products, etc. Chicago's foreign trade passes mostly through the port of New York and runs in excess of $1,100,000,000 per annum, as a rule. Very little goes through Boston; perhaps $100,000,000 through New Orleans, Galveston and Houston; and $150,000,000 through San Francisco and Seattle. The wide discrepancy in the estimates of Chicago's foreign trade, based upon intimate study of the flow of commerce and the estimates of foreign trade based upon government statistics, is apparent when we find that President Hoover (when Secretary of Commerce) credited Chicago with $1,500,000,000 for each of the years of 1926 and 1927, whereas the new Government classification gives the Chicago district only a little over half a billion. Customs House statements credit Chicago with little more than $50,000,000 in imports; and when it comes to exports, the city does not show among the first twenty important United States Customs districts.

¶ It is quite evident then that one of the first requisites for appreciation by Chicago, of its relationship to and dependence upon adequate over-seas transportation, is a better knowledge of the actual flow of American trade between interior cities and the ports. The future growth of the city depends very largely upon the extent to which adequate ocean transportation is available to its industries. During the Nineteenth Century it did not matter very much what kind of transportation was provided for the products of Chicago and its surrounding districts when they reached dock-side. Anything that would sail was sufficient. The exports consisted of raw or slightly processed natural products taken from the soil of a virgin continent by the crude exportation industries of the pioneering age. Speed was no important factor in the delivery of grain, lumber and salt pork. That condition no longer obtains.

Traffic on the Chicago River

¶ Chicago factories produced goods valued at $3,478,753,623 in 1927, the last year for which the figures of the biennial census of manufacturers are available; and Illinois has risen to the position of third manufacturing state in the Union. In addition to the output for the city of Chicago proper, the last manufacturing census discloses the following tremendous increase for the immediate adjacent territory:

County	*Output*
Cook	$3,844,401,346
Lake	67,457,566
McHenry	5,560,563
Boone	6,352,669
Winnebago	94,108,833
Kane	83,961,096
Will	88,947,528
Du Page	13,888,620
Lake (Indiana)	684,059,858
Total	$4,888,738,079

¶ As interesting as the totals in the recent census, which disclose the amount of output of manufactured goods, is the fact that an increasing diversification of the industries of Chicago and its district is in evidence. The number of Chicago industries increased 9.2 percent from 1925 to 1927. The character of these industries has been undergoing a change as the city has progressed from the status of a processor of raw materials to a highly-developed metropolitan manufacturing district producing specialized goods and services. The electrical goods, machinery, tools, scientific instruments and other such products which are now beginning to predominate in the city's manufacturing output, carry higher values per unit of weight and volume; and in the final value of the commodities, there is an increasing proportion of highly skillful and highly paid

labor and high managerial ability. Products of this kind not only are able to bear higher freight rates than the characteristically heavy products of Chicago's metropolitan industrial area; but, from the nature of modern trade, a large proportion of them demand faster and more reliable over-seas transportation. In this need for faster and more reliable transportation, Chicago only shares a need which affects all America; but the city has a very special interest in the provision of such over-seas transportation. To the extent that Chicago has developed on industrial lines ahead of the general average development of the country, the demand for this more modern marine transportation is peculiarly a Chicago demand. Of the total number of manufacturing establishments in the United States, Chicago has about 5.63 percent, 6.00 percent of the wage earners paid, 7.13 percent of the value of products and 7.72 percent of the value added by manufacture. It is indeed interesting that Chicago establishments produce 9.25 percent of all the iron and steel products not including machinery, 6.81 of all the transportation equipment, 15.40 percent of all the musical instruments and phonographs. The state's leadership in the production of telephone equipment and other electrical lines is widely known. The implication of these facts with regard to marine commerce is plain enough.

¶ The large number of commodities which are turned out of Chicago factories are subject to the marked influence of current style, that calls for speedy delivery. In modern commerce it has become more and more incumbent upon the original producer to furnish to his wholesale and retail outlets a steady and dependable stream of fresh and up-to-date goods, so that the distributor is not compelled to tie up large amounts of money in warehouse stocks. A large part of the recent participation of American industry has been due to the fact that increased railroad efficiency and the development of automotive freight services have made this faster turnover possible in our domestic commerce, but the moment the American manufacturer reaches "water-side," he encounters a new realm of transportation conditions. The average speed of ocean charter liners and tramp ships has increased only one nautical mile per hour in fifteen years. We have reached such a hiatus between our land and ocean transportation that this commercial age witnesses such incongruities as a London importer ordering American goods by the telephone and receiving them delivered in eight-knot ships. In my opinion, this critical condition calls for the closest attention and study; and for energetic action on the part of Chicago to contribute its influence in an organized effort to modernize marine transportation

Steamers Docked at Navy Pier

¶ We have a manufacturing plan and mode of distribution in the United States which is keyed up to a new system of rapid turn-over and fast delivery. Dependable and quick service to the retail stores, by fast express service on the part of railroads, prevents over-stocking of goods and resultant loss on seasonable products. Today the merchant is selling from his shelves, depending solely upon the quick delivery of his requirements from the manufacturer. This is responsible for much cash in hand that formerly was invested in inventories that required the manufacturers to be heavy borrowers at the banks. The number of times goods is turned-over by the manufacturer or retail merchant, the better service he is giving the ultimate consumer; and the more up-to-date the line of goods the consumer receives, the more he will buy—particularly of seasonable goods and styles that must be delivered on time and during the season in which they can be used.

¶ Our manufacturing system, which is accustomed to this sort of service in the domestic market, and which is organized to meet such conditions, is equipped to turn out at least twenty-five percent more goods than can be consumed in America; but its ability to find outlets abroad is seriously threatened by the fact that its distribution system is disrupted at the dock. In fixing production schedules and distribution quotas, the American manufacturer can calculate with certainty the time of delivery to his domestic markets and he knows the freight charges which his products must bear.

¶ Through a long course of careful study and revision, the rates which various kinds of commodities must bear have been classified in a manner which substantially conforms with equity and economics. One class of business is not as a rule called upon to pay an indirect subsidy to another kind of business, in the form of excessive freight rates which enable the railroad to carry the goods of another producer below cost; but that is exactly the situation which confronts the manufacturer when he becomes an exporter. Something above twenty percent of all ocean freight is carried at a loss, and the lack of any scientific classification of commodities causes myriad inequalities and injustices as between goods which are carried at a profit to the shipping company.

¶ Added to the anachronism of ocean commodity rates, we have rate-cutting conditions upon the sea, which—despite the fact that about eighty-five percent of the cargo-liner tonnage is under some sort of rate control through the shipping conferences—lead to such a low general average of earnings that the capital invested in the world's shipping as a whole is not earning a return which enables it to modernize ships and to increase their speed. This condition places an extra grievous burden upon American industry at this time, because we are increasing the proportion of our exports, which consist of highly finished goods in the distribution of which such factors as seasonability, style and a continuous flow of fresh supply in small quantities to the retail outlet are highly important. The proportion of our exports which is adapted to the uncertain, slow and chaotic rate situation now regnant on the seas is declining.

¶ Although Chicago may be 900 miles from the Atlantic Ocean, its economic interest in over-seas transportation is as intimate and immediate as its interest in so-called local problems

THE HUB OF THE COUNTRY'S AIR TRAFFIC IS CHICAGO

By

MAJOR REED G. LANDIS

Secretary, Chicago Aero Commission.

¶ Chicago, the transportation center of the continent, now has a new basis for that title. The latest form of transportation, aviation, has built its lines radiating from Chicago in all directions. Special charter flights, student flying, mail and express transportation, and private planes are so busily engaged with Chicago as a base, that while many other cities claim to be the manufacturing center of aviation, Chicago is accepted as the air-operation center. There is more scheduled flying from the Chicago Municipal Airport than from any other airport in the world.

¶ Our Municipal Airport is but one of nearly a score of landing fields in the Chicago District. Scattered throughout Cook County and in the nearby adjoining counties, are many fields publicly and privately owned and operated, from which the citizens of this district fly themselves, their mail and their goods, and to which the air traffic from the rest of the nation wings its way.

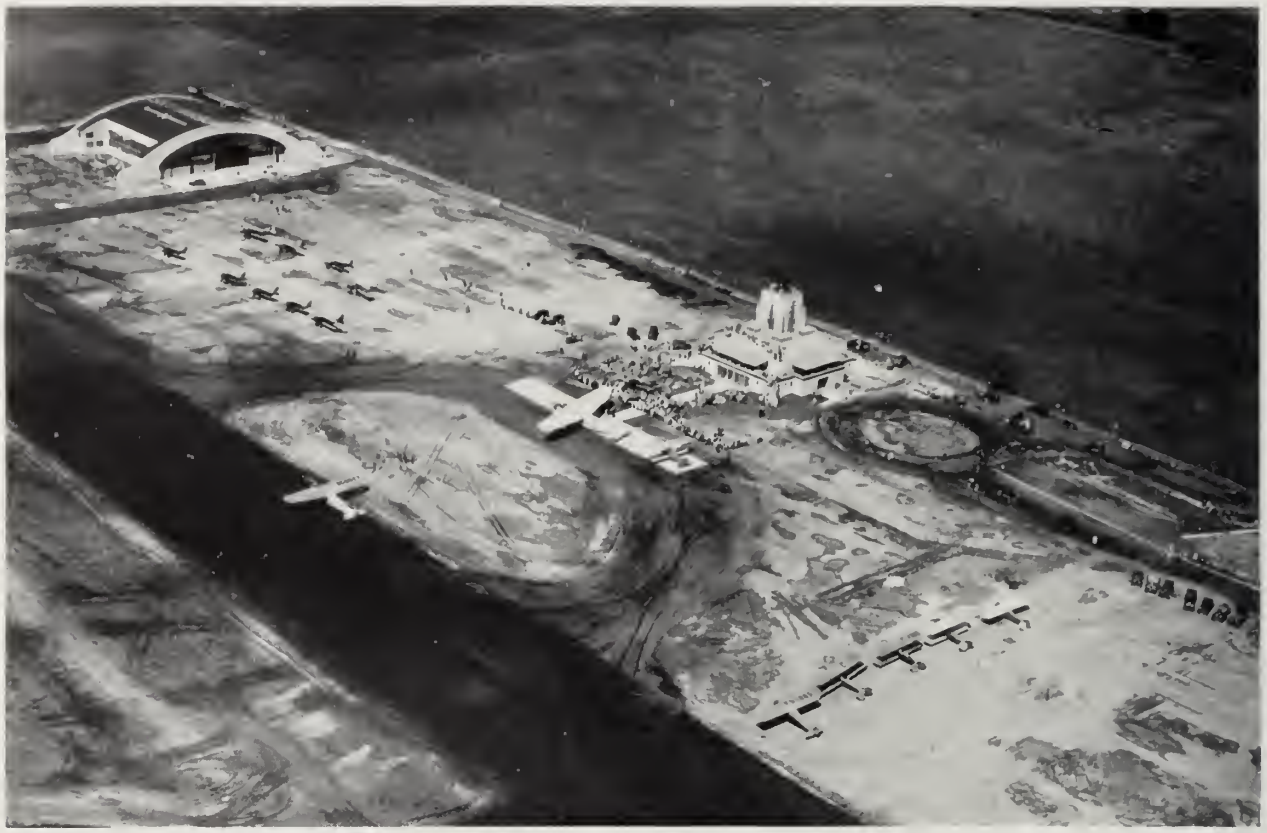
¶ Chicago early took its place in aeronautics. When Octave Chanute and his loyal band of pioneer aviators instituted their early experimental and development work prior to 1900, it was from Chicago. After the Wright brothers flew, Chicago men were among the first in the world to own private aircraft; and in 1910 Chicago held on its Lake Front one of the earliest aircraft exhibitions.

¶ During the World War, Chicago not only contributed many men to the Flying Services of the Army and Navy of the United States and its Allies, but it was an important source of supply of raw and finished material in the aircraft production program. On that historical experience, Chicago has built for itself a leading part in the commercial aviation structure of the United States. Chicago capital and management have played an outstanding part in the formation of the large operating and manufacturing companies, and Chicago industry is among the leaders in the use of this new business and social instrument.

¶ Headed by the Chicago Association of Commerce, several hundred civic clubs and associations in Chicago have active committees on aviation affairs. The City Council was among the first municipal bodies in the country to pass legislation restricting dangerous flying, and at the same time to encourage sound aeronautic activity, by creating the Chicago Aero Commission to develop, encourage and regulate the science in Chicago. Under the direction of the Aero Commission, comprehensive plans for the development of Chicago airport facilities to greater capacity are well under way. Those plans are predicated on a Lake Front Airport to be established on an artificial island immediately adjacent to the "Loop," with numerous storage and service airports on the edge of the city.

¶ Beacons of amazing power light the night flyer to the city.

¶ To Paul Henderson, Chicago citizen, is generally credited the fathering of commercial aviation in our Country. Colonel Henderson, as Assistant Postmaster-General, established the United States Air Mail Service following



Sky Harbor—North Suburban Air Port Used Commercially and by Private flyers. The Modernistic Building at Right is Club Petruska Where Patrons May Dine and Dance

the war. That outstanding governmental operation laid the foundation on which the private operators based their plans, which have resulted in a complete network of mail, express and passenger air lines, connecting nearly every important center in the nation.

¶ Another citizen of Chicago, William P. MacCracken, Jr., as the first Assistant Secretary of Commerce for Aeronautics,* had charge of the helpful and important work done by the United States government in the development and regulation of our national civil aviation in recent years.

¶ Chicago will find air transportation willing and able to aid materially in further upbuilding its prosperity and importance as the great natural capital of the continent.

* Resigned Oct. 1, 1929

UNDERGROUND TRANSPORTATION OF FREIGHT IN CENTRAL AREA

By

S. W. TRACY

President
Chicago Tunnel Company

¶ The gathering and distributing of package freight and the hauling of coal, cinders and excavated material are the particular services rendered by the Chicago tunnels which are owned and operated by the Chicago Tunnel Company and the Chicago Warehouse and Terminal Company. In their economic aspects, the tunnels are an integral part of Chicago's great scheme of trade and transportation and they are savers of time, labor and money. In their civic value they relieve street congestion, eliminate wear on the pavements and reduce the volume of noise and dirt. They offer sanitary advantages in the movement of foods and perishables, because the tunnels are clean and the air within them is pure and of even temperature. They are an influence in lowering the much-discussed cost of distribution.

¶ The tunnels are forty feet under the surface. They are below the sewers, the mazes of pipes, wires, cables and conduits; and are below the level of any passenger subway that may be built. They are unheard as well as unseen. Unlike a tunnel through a hill or under a stream, they emerge nowhere. They are reached only by elevators and they end against blank walls of concrete.

¶ The great business of the tunnels is the transportation of package freight. On the testimony of those who use them, they have brought nearer to solution the complex problem of gathering and delivering this kind of freight in the most congested section of an overcrowded commercial city. Transportation is an essential accessory of trade and commerce, in the means it affords of reaching distant places as well as in the gathering of the freightage from the thousands of points where it originates. In the process of gathering for shipment by railroad, the freight of each shipper does not go to one freight terminal or in one direction. One shipper may send goods in all directions and over many railroads. A truck laden with package freight may visit half a dozen terminals. Three or four trucks, none fully loaded, may be used; but however many the trucks, there will be delays in congested streets, with waits at each freight warehouse; and the time of their performance may not be estimated with any degree of accuracy. The Chicago Tunnels long have been contributing their share toward the solution of a great problem. They have reduced the movements of package freight and made them easier and shorter. They have expedited the gathering by systemization and they have reduced the delays that come of movements through the congested streets of the central business district.

¶ As an engineering project, the tunnels measure up to the highest standard. The tubes are six feet wide inside and seven and one-half feet high, shaped like a horseshoe. They are bored through a stratum of blue clay and the walls are faced with concrete a foot thick. There has been no perceptible settling, and the foundations of the buildings adjacent to the tunnels have remained unaffected. It would be the natural expectation that these long, dim corridors forty feet below the street levels would be damp and

Forty Feet Beneath the World's Busiest Corner at State and Madison

filled with heavy air. As a matter of fact, they are dry and cool. The ventilation is sometimes too active. Currents of air rushing for the shafts are stirred by the trains, and from the river drifts they blow with chilling vigor. The temperature is practically constant at fifty-five degrees. As a provision against dampness, there are sixty-three electric pumps and a complete system of pipes and eleven hundred sumps from which any accumulations of water are raised to the sewers above. There is very little seepage. The tunnel floors are dry and clean. Waterproof and fireproof doors are provided, to isolate connections with buildings and commercial terminals in case of fire or water from above. Scientific tests have shown that the air in the tunnels is remarkably pure. It is drawn up from them through shafts for the ventilating and cooling of many buildings and theaters.

¶ The noise made by moving trains is all that breaks the silence in the tunnels. They are a railroad, in their organization; and everything in their operations suggests order and system. The designation of lines as "one way streets" gives some liberty in the operating of trains; but the motorman of one train knows what another train, passing an intersection, is loaded with, where it is from and where it is going. The loading of coal and refuse material is mechanical and one man can load a train. Of the source of the material, nothing is observable except the end of the chute. Cars delivered to their destinations pass on to higher levels and trains are made up of cars that descend on elevators from shipping rooms above. There are no interferences, no crossing gates, no other kinds of traffic, no congestions, no delays.

¶ Twenty-four commercial houses have direct, individual connections with the tunnels through the facilities provided by the Chicago Warehouse and Terminal Company. These connections consist of tunnel approaches, switches, tracks, shafts and elevators for lifting cars to the level of the street floors; and are used only for the shipping and receiving of freight transported through the tunnels to and

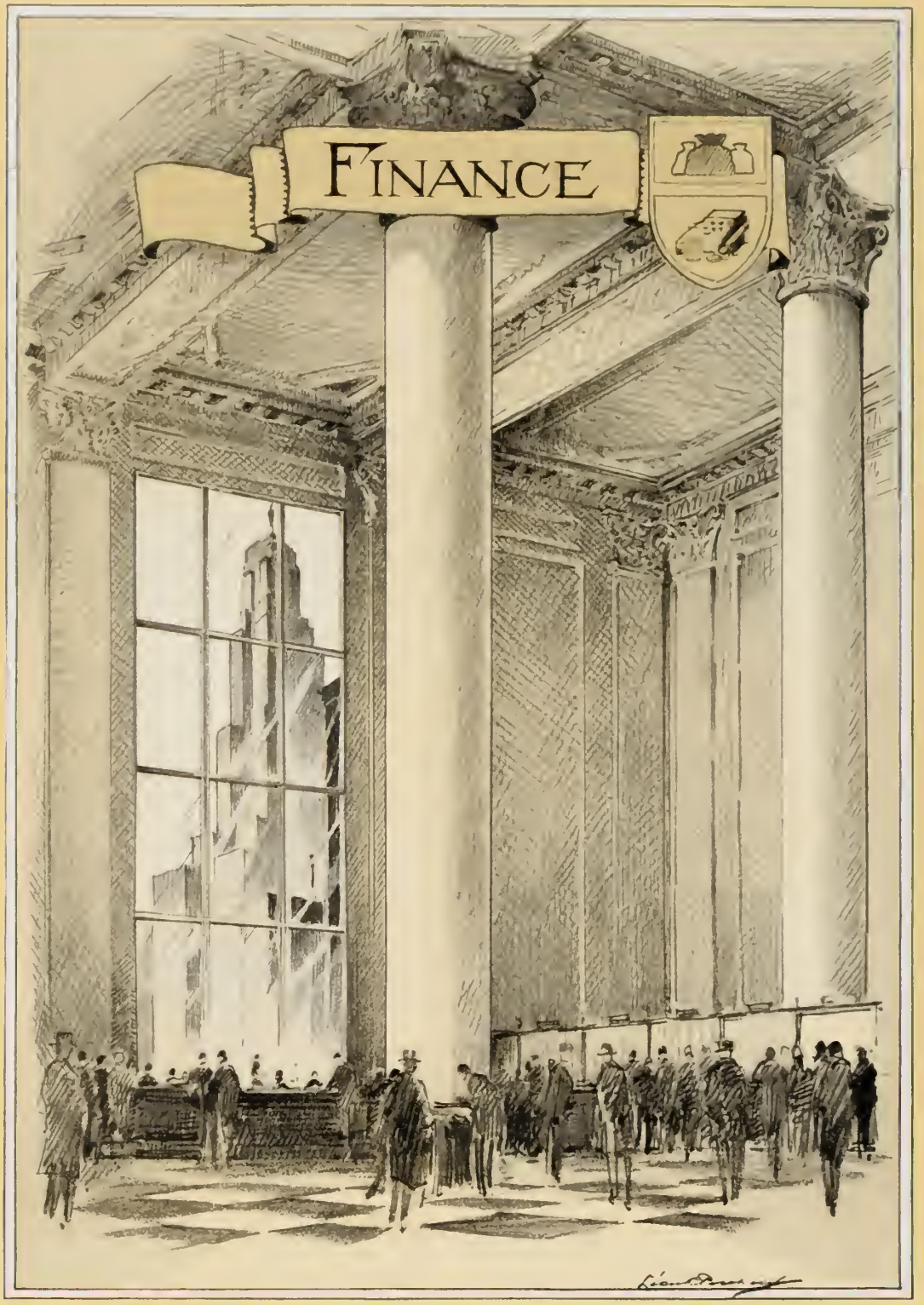
from railroad freight terminals. These connections have been in use for a long time. They are as much a part of the shipping facilities of these commercial houses as are packing and shipping rooms. Such dependence is placed on the tunnels that in many instances the buildings are not provided with the usual loading space for teams and trucks, and there is no possibility of securing such space without tearing out parts of the buildings. Tenants have been attracted to the warehouses by their desire for tunnel service. One of the large concerns with space in a warehouse near one of the "Universal Stations" is shipping an average of one hundred tons daily through the tunnels to various railroads.

¶ Naturally the largest business of the tunnels is with the railroads. Two thousand tunnel cars filled with freight are delivered to the various railroad terminals daily, and eight hundred cars are loaded for delivery to local consignees and other railroads. In a year the tunnels deliver to railroad freight terminals about 650,000 tons of package freight—enough to load approximately 100,000 ordinary freight cars. The Chicago Tunnel Company's four public receiving depots, known as "Universal Freight Stations," are outside of the loop; but each of them is strategically located for business from that district. Station No. One is at 746 West Jackson Boulevard, where the general offices of the company are also located. No. Two is at Erie and Kingsbury Streets. No. Three is at Seneca and North Water Streets. No. Four is at Canal Street and Roosevelt Road. These stations are for the use of shippers who have no private connections with the tunnel right-of-way. At their doors the freight is received for shipment over all railroads, and the entire job of shipping is completed there. The Tunnel Company is a common carrier, subject to the supervision of the Interstate Commerce Commission and it issues through bills of lading.

¶ Many commercial houses and office buildings have tunnel connections only for coal and cinder service. Underground delivery of coal offers no obstruction to street traffic which, in the case of coal trucks, is particularly obtrusive. One large coal concern has the tunnel service in its yard and makes its loop deliveries through the tunnels. Others have their coal cars placed at the tunnel chutes, where they unload into the chutes whence coal is delivered by tunnel cars to the boiler rooms of buildings as it is ordered.

¶ Nearly twenty years ago the tunnels were used for the delivery of mail between postoffice and railroad stations. It may, perhaps, be so used in the future, when the railroad passenger terminals now in prospect have been definitely located and when the new general postoffice on the west side has been completed. The tunnels have something specific to offer in saving of time, and perhaps of money, in the delivery of mail.

¶ Services of the Chicago Tunnel Company and the Chicago Warehouse and Terminal Company have been woven into the transportation fabric of Chicago. The investment of the two companies that own and operate the tunnel system is only a part of the total investment. A vast amount of business is geared to their services. This supplants other equipment in the form of trucks, loading platforms, team space and what not, which could now be installed only at great expense and with much difficulty in some cases and not at all in others. The value of the tunnel system to Chicago is not to be measured in terms of freight facilities alone. A system that can move 3,000 cars or more every day, within the most crowded area, and add nothing to the traffic congestion of the streets in doing it, is an urban asset of the greatest value.


FINANCE

BANKING IN CHICAGO ITS BEGINNING AND PROGRESS

By

GEORGE M. REYNOLDS

Chairman of Executive Committee
Continental-Illinois Bank and Trust Company

¶ It was not by mere chance that a few daring souls located on the shore of Lake Michigan at the mouth of the Chicago River upwards of one hundred years ago. Among pioneers usually there are men of initiative and some who are capable of forming rather accurate opinion as to the prospects of one new location as against another. The early settlers here were of the pioneer type. They had a deep conviction that the great Middle West would become an empire of fabulous wealth; they knew that this development would mean big cities, and from what knowledge they had of the geography of the rich Mississippi Valley, they concluded that at this point a city of importance would some day come into being. They induced other persons to believe as they did. It was just as logical to look forward to the establishment of great banking houses here. As agriculture, manufacturing and merchandising thrive in a community, and population increases, banking facilities must be provided.

¶ History proves that where there is progress there must be banks and other agencies equipped to finance business and safeguard accumulated wealth. They become necessary. Aside from regular banks of discount and deposit, savings banks, trust companies, bond houses, stock exchanges and brokers all enter into the picture of a banking and financial structure; and from remote times, those nations that have reached the highest point of perfection in governmental and business efficiency have been the leaders in banking and finance.

¶ The story of Chicago's rise to power differs very materially from that of any other city in the world. It is a miraculous story. This statement applies as well to its growth in banking and finance as to its increase in population and general business. This city accomplished as much in less than one hundred years as have other great cities in two or three centuries or longer. It was not until the year 1835 that any regular bank offered its facilities to what then was a struggling and ambitious village where the metropolis of the West now stands. In that year the Second Bank of the State of Illinois was persuaded to establish a branch at this point. There was much opposition to its doing so. The rest of the State was not impressed with the coming importance of Chicago, and about the year 1840 the legislature decreed that the Chicago branch of the bank should be removed from the city.

¶ Authentic records of deposits during the first thirty-seven years of banking here are not available, but it is intensely interesting to make a few comparisons based on obtainable data. In 1855-56 there was employed in banking in this city by private bankers, brokers and incorporated banks a total capital fund of six hundred and seventy thousand dollars. From that time forward the increases were so very marked as to show how astonishing was the progress of the great new section of country from which Chicago drew its trade. By 1865 the total authorized capital of incorporated banks had risen to $6,820,000, and

the amount paid in was about $4,000,000, while the capital in use by private bankers was estimated at $2,000,000. In 1872 a record of deposits was preserved, and in that year the total amounted to $38,100,000. By 1880 it had mounted to $64,700,000.

¶ The foregoing were periods of alternating successes and failures, experiences common to empire building. The successes predominated. Chicago's leaders in business were forceful, farsighted, determined men who never were disheartened by defeat. For a quarter of a century prior to the inauguration of the national bank system, defective banking and currency laws encouraged "wildcat" banking in many parts of the country. This weakness was a disturbing element in Chicago, but there were sound banks that survived in spite of unscrupulous competitors. Following the enactment of the national bank law and the close of the civil war, the country prospered amazingly; and banking was put on a much higher plane. Chicago and its banks enjoyed a new era of wonderful prosperity. An illustration of the dauntless character of the city's business men and bankers may be taken from the rapid recovery after the fire of 1871. A similar conflagration would have crushed many larger and more wealthy cities, but it served only to spur Chicago onward to greater achievements. With other businesses, the banks suffered greatly as the result of the fire; but within a few days, as soon as temporary quarters could be secured, the banks were reopened to serve their customers in an hour of dire need.

¶ In seventeen years, bank deposits in this city rose from $64,700,000 (in 1880) to $247,000,000 (in 1897) and by 1910 the total was $830,000,000. There was a tremendous increase in the next decade at the end of which deposits reached $2,278,000,000. Is further proof needed to show that this city, not yet officially one hundred years old, has made marvelous headway in banking and finance? Very rapidly it has forged to the front as the second American city in importance as a banking center. The trend persistently has been towards higher levels. By 1928, the item of deposits had climbed to $2,942,000,000, and other items composing bank statements — capital, surplus, undivided profits, etc., as well as bank clearings — have kept pace with deposits.

¶ The largest of the twelve Federal Reserve Banks is the one located in New York, and next in size is the Federal Reserve Bank of Chicago. The Reserve Bank here has rendered invaluable service to its member banks of the rich agricultural and manufacturing section which comprises its district. Through this service the member banks have been able to do far more than otherwise would have been possible in the way of financing the constantly increasing business of a rapidly-expanding industrial section.

¶ The bond departments of the banks, the local stock exchange, the board of trade, bond houses and stock brokers all have kept abreast of progress. They have helped to furnish capital in very large amounts for converting raw materials from farm, forest and mine into food, merchandise and machinery for local and foreign consumption.

¶ The men who manage the banks of Chicago and all other agencies associated directly or indirectly with banking and finance realize full well that much remains to be done before this city and this section of the United States will have attained their maximum in population, in industrial output and in wealth. These men see a future that promises growth equal to anything we have had in the past. They are preparing for the needs of this coming greater city and greater empire of the West by adding to existing banking capital and all the other facilities that will have to do with the financing of what I believe will, in due time, be another astonishingly large forward movement. In a little less than twenty years deposits of Chicago banks increased $2,112,000,000 or 254.4%. In view of what has happened here in that time, who can predict the full possibilities of the next twenty years?

La Salle Street—Chicago's Financial Center

WORLD'S FOREMOST GRAIN MART THE CHICAGO BOARD OF TRADE

By

SAMUEL P. ARNOT

President

¶ To visualize the breadth and scope of this exchange, a few statistics are helpful. Organized by leading merchants eighty-one years ago, the Chicago Board of Trade has for several decades ranked first among the commodity exchanges of the world. In a single year it handles nearly 400 million bushels of grain. Its provisions market is second to none. Its five-year-old cotton market, an infant among such exchanges, increased the volume of business six-fold in a year and inaugurated numerous progressive measures which the older cotton markets subsequently found it judicious to adopt.

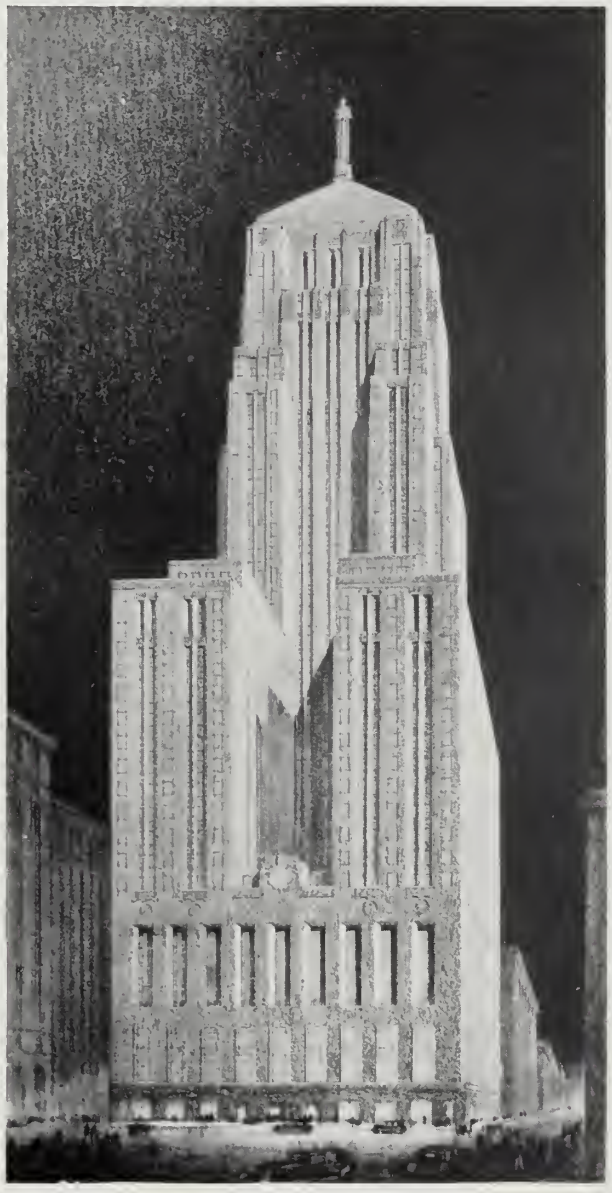
¶ It has been estimated that through the operation of the Chicago Board of Trade 30,000 persons are directly given employment, while 100,000 are either directly or indirectly provided with regular work. It has been further estimated that members of the Chicago Board of Trade maintain, in Chicago banks, balances aggregating the sum of $200,000,000.

¶ There are more than 1,500 memberships. They are held by merchants, exporters, bankers, millers, elevator men, cooperative farm groups, brokers, insurance companies and by representatives of numerous other lines of commerce either directly or indirectly interested in the marketing of grain, cotton and provisions or of stocks and bonds.

¶ The functions of the Chicago Board of Trade are tightly woven into the whole commercial fabric of the nation. In the early days of exchanges there was much blind groping toward improved marketing methods. During those periods of uncertainty, practices on stock and commodity markets were too frequently out of line with the best ethics of commerce. That opened the door to political marauding; and for a period of thirty years, or until the last few years, exchanges in general were in effect the football of politics. General misunderstanding resulted. Hence the average reader would be surprised to learn that modern exchanges today maintain the highest standards of business practice found in this or any other country of the world. In the case of grain exchanges, their own rigid rules are supplemented by the Grain Futures Act. That law places the exchanges under the direct supervision of the United States Department of Agriculture. Transactions on the grain exchanges come under the constant scrutiny of government experts, with whom officers of the exchange work in close cooperation.

¶ Growth of the Chicago Board of Trade has been due to one single outstanding fact. It markets the farmers' grain at a lower cost than exists in the marketing of any other staple foodstuff. The toll between farmer and consumer is the lowest. This is due to the system of "futures trading" which permits the owner of actual grain—whether he be country elevator man, merchant, miller or

exporter—to "hedge" his holdings of grain and thus shift the risk of price swings to the "futures" market. This form of commercial price insurance permits the handler of grain or grain products to conduct his business on a more narrow margin of profit. If he alone had to assume the risk of price fluctuations, often due to uncontrollable world conditions, he would necessarily have to operate on a wider margin; and this would be reflected back to the producer. In other words, the producer would have to help absorb inevitable losses due to price changes which no one could control. So the result would be that the farmer would receive less for his wheat and the consumer would pay more for his bread, if we did not have the "futures" markets with their highly valuable "hedging" facilities.



¶ When the Board of Trade decided to install a cotton market, a few years ago, there were many doubters. They could see no reason for a cotton market in Chicago. An economically sound contract was worked out with the department of agriculture, which provides delivery at Houston and Galveston, the largest "spot-cotton" basin in the world. The Board has introduced one constructive change after another. So the Chicago cotton market not only has been a success, but has wrought changes of inestimable value in the business of marketing cotton.

¶ Establishing of a securities market in September, 1929, opened up a vast field for development. The Chicago Board of Trade taps wide stretches of rich grain country previously untouched by stock tickers; and in such sections are available millions of dollars for investment and speculative purposes. In fact, the Board's private wire system reaches all points penetrating the entire agricultural section. Many grain and cotton points now feeding business into the Board of Trade were completely without stock quotations. So a security listed on this Exchange at once goes into a fertile field for the distribution of capital stock. The plan has been to list only as many stocks as can be properly handled. In that way, it is hoped and believed, a market of broad Mid-west interest may be developed.

¶ Up to 1925, the yearly Board of Trade volume in dollars and cents was the largest of any American exchange. This situation was altered by the big increase in stock trading. But securities trading on the Board of Trade is expected eventually to return the exchange to its former first place in dollar volume. Surveys have indicated that the commodity clientele built up by Board of Trade houses will take a keen interest in stocks. Largest of all commodity exchanges, the Board of Trade should soon be a securities market of real international importance.

THE STORY OF CHICAGO'S STOCK EXCHANGE

By

R. ARTHUR WOOD

President

¶ Prior to 1927 The Chicago Stock Exchange was a small, inactive market, where in the course of an ordinary day's languid trading less than 50,000 shares would change ownership. Today it is one of the important security markets of the world, where in a single day as many as a half million shares have been dealt in. At the beginning of 1928 there were 274 stocks and 103 bonds listed on this Exchange. During 1928 there were 297 stocks and 101 bonds added to its list.

¶ The interesting story of the Exchange is told in the following chronology:

January 19, 1865—At 53 Dearborn Street the first Chicago Stock Exchange opened. Its work proved valuable during the Civil War, in maintaining prices on government securities.

January, 1869—A second attempt was made to form a Stock Exchange, but competition with the New York Stock Exchange was too keen, and the Great Fire of 1871 ended the attempt.

March 21, 1882—First meeting of present organization held in the Grain and Provision Call Board room of the Chicago Board of Trade.

March 25, 1882—131 signers of an agreement assembled to organize and elect Charles Henrotin, president; George E. Wright, secretary.

May 15, 1882—The new Chicago Stock Exchange formally opened for business, with 134 items for trading.

May 1, 1883—Exchange was removed to 128 Washington Street.

May 1, 1885—Exchange was removed to 124 Washington Street, having leased the basement, adjoining the Chamber of Commerce.

March, 1885—139 of the New York members petitioned the Governing Committee for a dissolution of the Exchange and distribution of its assets. The petition was laid on the table.

October, 1885—Removed quarters to the Call Board room of the Board of Trade.

January, 1886—The Exchange removed again, to rooms in the Chamber of Commerce.

April, 1887—Marks the lowest point in the history of The Chicago Stock Exchange, and resulted in the Western Union Telegraph Company serving notice that it would withdraw its instruments from the floor of the Exchange.

May, 1888—In the interest of cheaper rent, removed into two rooms in the old Chicago Opera House Building at Clark and Washington Streets.

May, 1890—With Charles Henrotin again President, the Exchange moved into new quarters in the building named for it at Dearborn and Monroe Streets.

May, 1890—Western Union Telegraph Company restored its instruments.

October 21, 1891—Clearing House system installed.

October 23, 1891—Trading in the account was authorized by the Governing Committee.

April 30, 1894—Removed to the building at La Salle and Washington Streets which had been named The Chicago Stock Exchange Building.

February 17, 1896—Diamond Match episode.

August 3, 1896—Only meeting ever held by the Governing Committee outside its rooms, where it was decided to close the Exchange indefinitely as a result of the Diamond Match episode.

November 5, 1896—Exchange reopened for business.

May, 1900—Trading posts established.

April 20, 1908—Removed to the Rookery Building, 209 South La Salle Street.

August 1, 1914—Exchange closed, upon Declaration of World War.

August 13, 1914—Regulated trading conducted through a special Committee on Trading continuing until November 25, 1914.

November 25, 1914—Exchange reopened for qualified trading.

April 1, 1915—Exchange resumed unrestricted trading.

April 16, 1928—Removed to the present quarters with a 1,000,000-share day capacity, in the State Bank of Chicago Building, 120 South La Salle Street.

June 1, 1928—Began program of ticker expansion to all important middle western cities.

July 1, 1929—The amendment to the usury law of the State of Illinois permitted the borrower and the lender to make call-loan money rate agreeable to them. By July, 1929, tickers of the Chicago Stock Exchange had been installed in twenty-six cities in the United States.

¶ The position and outlook of Chicago as a financial center, in which the Stock Exchange is one of the indispensable financial institutions, was summed-up thus, by the president of the Pennsylvania Railroad when application was made to list the stock of that corporation on The Chicago Stock Exchange: "Chicago is certain to continue to be one of the great financial markets of the world. Almost no limit can be placed on the possibility of its development and expansion. The Pennsylvania Railroad, so intimately identified in every way with Chicago and the territory which it serves, wishes by this to ally itself more closely with the continued progress which Chicago is certain to enjoy."

¶ On July 19, 1928, the *Wall Street Journal* pointed out the important rise of Chicago to the financial market of the country for public utilities securities as indicated by the fact that bankers in Chicago underwrite thirty-five per-cent of the utility securities sold in the United States. The *Journal* states:

"This city and public utility progress always have been closely associated. Each new development in the industry has found the utilities centering in Chicago in the forefront. The city is in the center of the greatest pool of power in the world.

"Chicago's investment houses and banks are at present distributing annually millions in securities of many of the outstanding groups in the utility field.

"The dominance of Chicago is shown most plainly in the mid-western area, but it extends also to the Mexican border in Texas, is considerable on the Pacific Coast, and is also large in New England, and in still other sections of the country Chicago financing prevails in the electrical industry."

¶ While Chicago financing of public utilities stands out prominently, the city is also the railroad center of the country, the center of the steel industry, manufacturing, agriculture, wholesale and retail trade; and the part played in recent years in financing the utilities is only indicative of the economic trend of Chicago toward becoming a center in every department of national and international finance. Where population and capital concentrate, financial development must needs follow, for convenience and economy. It is to serve these needs of the times that the banking and investment institutions of the city have redrafted their plans in recent years for larger business. The Chicago Stock Exchange as a market place for the negotiable instruments of capital and credit is one of the necessary institutions preparing to serve in this normal development of the city as a financial center.

¶ Money flows freely and quickly to the place where it can with safety command the best market. A large money market in Chicago for the liquid funds of the central states will be a direct benefit to every bank, commercial, industrial and agricultural enterprise in the Mississippi Valley. The amendment to the state usury law in 1929, allowing the rate on call loans to be fixed by the law of supply and demand, has made possible a flexibility in the call-money rates at the Chicago Stock Exchange equal to that of any money market in the world.

POSITION CHICAGO OCCUPIES IN THE INSURANCE FIELD

By

H. A. BEHRENS

President

Continental Casualty Company, and Continental Assurance Company of Chicago

¶ It probably will come as a surprise to many persons, including a large number engaged in the insurance business, to learn that Illinois last year paid approximately one-eleventh of the entire vast total of insurance premiums collected nation-wide by the various life and stock casualty, surety and fire insurance companies operating in America; and further, that of the amount paid by Illinois, less than six per cent was paid to companies having their home offices within the state. Yet, figures are figures; and those obtained from the *National Underwriter*, an authentic source, reveal that the various stock insurance companies, including mutual life insurance, operating in this country collected a combined premium income last year of $4,036,323,034.00, a truly staggering insurance bill; and that Illinois alone contributed $369,791,632.00 to this vast sum, of which only $21,024,995.00 was paid to home companies.

¶ These are imposing figures, having a distinct bearing upon the financial and economic importance of Chicago and the State of Illinois generally.

¶ Of the sum paid for insurance protection last year by the people of Illinois, $44,060,912.00 was paid to stock casualty and surety companies of other states; $9,819,407.00 was paid to stock casualty and surety companies of foreign countries, and only $5,317,188.00 was paid to stock casualty and surety companies having their home offices located either in Chicago or elsewhere in the State of Illinois. In the life insurance field, $225,837,623.00 was paid to companies of other states and $14,753,349.00 was paid to home companies. Fire insurance premiums paid to companies of other states amounted to $57,301,497.00, while companies of foreign countries collected $11,647,198.00. Illinois companies accounted for the small balance, $954,458.00. It is readily apparent from these figures that both Chicago and the State of Illinois retain very little of the millions paid locally for insurance protection.

¶ The institution of insurance influences intimately the lives, hopes, prosperity and property of more citizens than any other business or economic group, reaching in its wide scope all classes, all business and all financial ventures. Few persons, however, excepting those most closely connected with the business, properly appreciate the tremendous part insurance has played and is playing in the drama of human progress. It is not to be wondered at that the public served by insurance fails to realize its importance and that states generally are unaware of the financial and economic importance of building up strong, high grade insurance institutions within their borders. By minimizing the risks and hazards of industry,

finance and commerce, by compensating as far as dollars will compensate the economic losses due to death, injuries, sickness, property damage and other such misfortunes, insurance has afforded protection and security to every step in the forward movement of our country and its people. Nothing really worth while has escaped its potent touch. It has impressed itself indelibly upon every phase of social and economic evolution and progress, adding the essential element of confidence to individual initiative and furnishing a sound foundation of security and protection for the processes of production, distribution and individual progress. It thus has become a mighty motive power, at the same time acting as a most effective brake against retrogression and reaction.

¶ It is no exaggeration to say that the vast expansion of credit resources and facilities required by the modern order of things has been made possible only because of the background of sound and properly operated insurance companies; and, further, that insurance is the very keynote of the credit arch.

¶ We have seen how Chicago and the State of Illinois generally have been and are contributing a very large share to the immense total of insurance assets, reserves and premiums of the entire nation. It is doubtful, however, if Chicago and the State of Illinois have received from this great contribution a proportionate return in monies invested to foster local development and expansion, since the great benefits derived from these monies naturally accrue in direct proportion to the total of insurance premiums paid by the state to companies outside its borders and the amount of premiums which are collected country-wide by companies domiciled within the state

SPORTS GET LIBERAL SUPPORT FROM CHICAGOANS

By

WALTER H. ECKERSALL
Writer and Critic of Sporting Events

¶ Over the span of years since the World's Fair of 1893 was held, there has been a vast improvement in sports, professional and amateur. Thirty years ago, sports of various kinds were looked upon as events for the grown-ups. The rising generation was given little or no encouragement. The boys and girls had to shift for themselves. There was no incentive for them to practice or train. They had no toboggan slides, the snow on the lagoons in the parks seldom was cleared away, and the youngsters had to make the best of those conditions. That is the reason why so few good athletes were developed in the preparatory schools, universities and colleges.

¶ Horse racing flourished in Chicago until 1906 when the famous Washington Park race track was closed by city officials because of irregularities. Highball won the last American derby at this famous course, considered one of the great ones of the world. It was bounded on the north by Sixty-first Street and on the south by Sixty-third Street. The eastern boundary was Cottage Grove Avenue and the western, South Park Avenue. That famous track was noted for its colorful gatherings. On Derby Day, there was one continuous stream of fashionably-dressed women seated in horse-drawn conveyances of various kinds. Open betting was permitted. The track was the scene of the great trotting races between Joe Patchen, the pacer, and Star Pointer, the trotter. McChesney, a big, black horse, won many a stake there. At that time there were several other tracks near Chicago, including those at Hawthorne and Roby. During the winter months, trotting races were held on Grand Boulevard on the south side, starting at East Thirty-fifth Street. The fastest trotters and pacers were matched, and "cutters" were used instead of wheel sulkies. Those events generally took place on Wednesdays and Saturdays. They attracted thousands of spectators who stood in the bitter cold to watch the spirited racing.

¶ Following the Fair of 1893, "bike" racing was at its peak. Aside from the six-day "go as you please" races held in the old Coliseum at East Sixty-third Street near the Illinois Central tracks, and those held in Tattersall's arena, there were the usual long grinds from Milwaukee, Elgin, Aurora and other cities, to Chicago. Bicycles of all kinds, even the high, front-wheel and small, back-wheel, were ridden in those events. Then there were the usual Pullman road race and various events sponsored by the many cycling clubs in Chicago. The tandem and the "quad" were frequent sights on the boulevards on Sundays and holidays, when all riders turned out the same as do the motorists of today.

¶ Rowing was indulged in, but not on an extensive scale. In the early nineties, the Farragut Boat Club, located at Thirty-first Street and the lake, sponsored most of the events. Everett C. Brown, a nationally-known amateur athletic official, was a member of that club. Yachting also took a start, and expanded rapidly in the next few years.

¶ In 1876, organized baseball put in an appearance and the Chicago team was one of the charter members. Its grounds were on the west side. In 1900, the American League

Soldiers' Field in Grant Park Has a Seating Capacity for 200,000 Persons

was organized, and professional baseball started to attract considerable interest. The White Sox Park, with its wooden stands, was at Thirty-ninth Street and Wentworth Avenue. Teams in seven other large cities were organized, and the first league games were played in that year. In most of the large cities there were National and American League teams, and the "fans" soon started to show their allegiance to members of either league.

¶ The University of Chicago was founded in 1893, and President Harper, its first chief executive, engaged Amos Alonzo Stagg for its athletic director and coach of all teams. At the time of his appointment, Stagg was studying for the ministry. He was one of the noted athletes in Yale's history. He pitched on the baseball nine and played "end" on the football team. Games of various kinds were played with such college teams as Lake Forest, Monmouth, Knox and others of their caliber. Some of the struggles took place in Washington Park before a fence was put around the present Stagg Field. In those days this latter ground was known as Marshall Field. There was a covered stand in the northwest corner. It would accommodate about 1,000 "fans." Ropes were stretched around the boundaries of the playing field to keep spectators off the gridiron. The same general conditions in athletics existed at Northwestern. The Purple grounds were called Sheppard Field, located near the lake at the north end of the present campus. Like Marshall Field, there was a small, covered stand at the south end, but no bleachers on the sides. Contests were held with freezing winds blowing across the field. In the fall the gridiron was as hard as any pavement; but the "pig-skin warriors" did not appear to be distressed by such obstacles.

¶ Boxing flourished in Chicago previous to the Fair of 1893. Bouts were held in the Apollo Hall, Battery D Armory on the lake front, in little America Hall and at Tattersall's. George Siler and Malachy Hogan were the popular referees at that time. Terry McGovern, Joe Gans, Tommy Ryan, Tommy White, Bennie Yanger and Abe Attel were among the many notable fighters of that day who appeared in local arenas. But the fighters killed their own game. The law stepped in and put an end to boxing in 1900, after

The Hazardous 10th Hole at Indian Hill Golf Club, Winnetka, Illinois

Terry McGovern and Joe Gans engaged in a fiasco at Tattersall's. It was a "fake" fight, and authorities put a ban on the sport. A few sneak fights were held occasionally afterward, but the sport was dead so far as Chicago was concerned.

¶ As the years rolled by, there was a constant revolution in all branches of sport. The coming of the automobile gradually drove the bike and horse-drawn vehicles into the discard. Instead of numerous trotting and running races and "bike" contests, races between automobiles began to attract attention. Tracks which had been the scenes of many a running and trotting race were converted into auto-racing courses. This was especially true of the smaller towns where agricultural fairs were held annually.

¶ Golf was introduced in Chicago soon after the World's Fair, being for the next few years limited to playing on the courses of some of the country clubs. But the allurement of that sport led to a steady expansion of its scope in this vicinity. Golf clubs in the environs of Chicago are numerous now; and many important championship matches have been played over their links. All of the large public parks of the city have courses, and the Cook County Forest Preserve is liberally provided with facilities for golfers who care to seek their recreation in that attractive area.

¶ Polo has been played in Chicago and nearby perhaps longer than golf; but the play has been confined to the private grounds of the polo clubs.

Patten Gymnasium Crowded with "Fans" During a Conference Game

¶ Gradually, the universities and colleges throughout the nation grasped the spirit of athletic competition, with the result that old stands and fields were not large enough to hold the spectators who had been aroused to take a keen interest in inter-collegiate athletics. Consequently, coaches of experience were engaged to teach players the intricacies of the various sports. The western conference which was organized in 1896 at a meeting of delegates from Minnesota, Wisconsin, Illinois, Northwestern, Purdue, Michigan and Chicago started to function in all suitable branches. Indiana and Iowa were admitted to membership in 1899 and Ohio State in 1912. University presidents and heads of the athletic departments realized that something must be done to accommodate the crowds which were eager to see the red-blooded collegians in action on the football field, cinder path and baseball diamond. One by one, colleges and universities fell into line. As time wore on the old wooden stands were torn down and monster stadiums were erected. Some of these today will hold close to 100,000 spectators.

¶ Basketball came along, and now is the major winter sport in all our universities and colleges. In order to take care of the crowds, field houses have been built at a number of the institutions. Some of them will seat comfortably as many as 10,000 spectators. Tennis courts were installed, running tracks were remodeled and everything was done for the benefit of those who cared to engage in wholesome outdoor and indoor exercise.

¶ Practically the same situation existed in the preparatory schools. Instead of the haphazard manner of playing games in vacant lots or in the public parks, the high schools played their games on the university fields. In many cases, high-school elevens met college and university teams or engaged in "curtain raisers" to the regular 'varsity struggles. Leagues were organized, proper coaching was secured and the teams were outfitted properly in the various school colors.

The Mizpah and the Doris on Lake Michigan

¶ In 1915, when William Hale Thompson was first elected mayor of Chicago, he founded the playground system. The city secured sites in various sections and equipped the grounds with various sorts of gymnasium apparatus. In later years the system developed, until now there are nearly one hundred playgrounds in Chicago. Realizing what the system meant to the youth of Chicago, The Chicago Tribune was among the first organizations to promote systemized contests for the patrons of the playgrounds. A skating meet was held, with "preliminaries" decided in various districts; and the "finals" at certain grounds. Later on, The Tribune conducted a track and field meet for the youngsters. Those affairs proved so attractive that heads of the playgrounds system decided to arrange their own contests. In 1907, The Tribune inaugurated its silver skates derby. Scarcely one hundred entries were received for the first race, which was a free-for-all open to all, regardless of age. This event developed so fast that races had to be arranged for boys and girls of various ages. Of late years, six silver skates races are held and the list of entrants generally exceeds 4,000. The Tribune has also sponsored water carnivals, for the enjoyment of as many as 80,000 persons, who swarmed to the long lagoon in Lincoln Park.

¶ That keen interest which the youth of the nation took in sports following the Fair of 1893 enabled the United States to send to Europe men who were physically fit to assist the allied nation to whip Germany into submission. It was those athletically inclined boys who had learned the spirit of combativeness, in the American universities, colleges, preparatory schools and on the public playgrounds, who were among the first to enlist. It was that aggressiveness cultivated on the athletic fields which made the American soldiers so effective in the world's most titanic struggle.

¶ The manner in which our soldiers performed put at rest those adverse criticisms of American athletics which had begun to appear previous to the war. Our soldiers had the stamina, gained through athletic contests, to carry them through, despite the discouraging conditions they encountered.

¶ Since the war, athletics have been developed on a larger scale Other nations have sent representatives to America to learn something of our facilities for athletic training. Some have gone so far as to engage Americans to teach their boys and girls the various ways to put students and others in that same physical condition that characterized the appearance of the American army in Europe. Practically every sport is improving. Football formations are developed scientifically. Baseball is played like a machine. Track and field records are being broken with regularity. Through the efforts of prominent business men, boxing and horse racing have been legalized in the state of Illinois. There are four excellent tracks near Chicago, and some spirited racing will be seen at these tracks in 1933. Soldiers' field in Grant Park, which can seat 200,000 persons, will be the scene of many championship boxing matches. Col. R. R. McCormick, chairman of the second world's fair athletic committee, is bending every effort to make the athletic competition the greatest ever seen in any part of the world.

COMPILED AND ARRANGED BY

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